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ROCKS AND MINERALS

Mineralogy • Geology • Lapidary

Wernerite crystal with tourmaline crystals, Gouverneur, N. Y.
Elmer R. Rowley collection

60c

JANUARY - FEBRUARY, 1956
Whole Number 250

65th LIST of FINE MINERALS

EPIDOTE, Arendal, Norway. 2" xl. in xlline. mass 2½x2½ ..... $ 2.50
SODDYITE with CURITE, etc., Belgian Congo. Mass 2x1¾x1½. 191 grams $25.00
COLUMBITE, Portland, Conn. Two 1" xls. in Feldspar. 2x1½ $3.00
VESBINE (MOTTRAMITE, Vesuvius. Crusts on lava of 1631. 2½x2 ..... $3.00
ZIPPEITE, Great Bear Lake. Incrustation on Pitchblende ore. 2½x2 ..... $3.00
FERVANITE, Gypsum Valley, Colo. Fibrous coating on rock. 2½x2 ..... $3.00
FOURMARIERITE, Wolsendorf. With other U minerals in Fluorite. 2½x2 ..... $10.00
HUREAULITE, Pala. Xlline. mass w. associated minerals. 3x2x1¾ $5.00
BERTHIERITE, Saxony. Xlline. in matrix. 2½x2. ..... $2.50
PATRONITE, Peru. Black earthy mass. 3x2 ..... $3.00
POLYCRASE, Brazil. Group of crude xls. altered on surface. 3x1½ $5.00
WOLFRAMITE, Bohemia. Fine loose xl. 2x2 ..... $5.00
TROILITE, California. Solid mass. 2x1½ $2.50
BETAFITE, Madagescar. Large xl. 2½x2½ $10.00
COBALTITE, Sweden. Good xls. w. Chalcopyrite in ore. 2½x2½ $5.00
FLUORITE, Saxony. Brilliant deep-yellow xls. on rock. 5x3x1½ $10.00
SMALTITE, Spain. Very large brilliant xls. in mass. 3x1½x1½ $7.50
CAHNITE, Franklin, N. J. Numerous xls. on xld. Rhodonite. 2x1 ..... $50.00
PYRARGYRITE, Harz Mts. Xld. with STEPHANITE on matrix. 2x2 ..... $10.00
LORANSKITE, Finland. Xlline. mass w. some matrix. 3x2 ..... $5.00
SURSASSITE, Switzerland. Xlline. mass with matrix. 2½x2 ..... $3.00
ZEUNERITE, Saxony. Micro. xld. w. TORBERNITE, etc. on rock. 3x1½ $10.00
AZURITE, Chessy, France. Very fine group of large (1") xls. 5½x3 ..... $25.00
VALENTINITE, Algeria. Micro. radiating xlline. mass. 2½x2½ $3.00
EUCLASE, Brazil. Complete translucent greenish xl. ⅞". $10.00
SLAVIKITE, Bohemia. Crusts on rock. 2x1½ $2.00
CYLINDRITE, Bolivia. Xlline. mass showing good "cylinders." 2½x2½ $6.00
COSALITE, Cobalt, Ont. Bright xlline. mass. 2½x2 ..... $5.00
BENJAMINITE, Nevada. Xlline. mass in Quartz. 3x2 ..... $7.50
NAGYAGITE, Nagyag. Well xld. in matrix. 2x2 ..... $10.00
HAUERITE, Sicily. Sharp ⅝" xl. $7.50
DUFRENITE, Cornwall. Spherical on rock. 2x1½ $2.00
TEALLITE, Bolivia. Xlline. mass. 2½x2x1½ $5.00
SPHENE (TITANITE), Switzerland. Numerous twin xls. on rock. 2½x2 ..... $7.50
HEMATITE, Brazil. Group of briliant xls. "Iron Rose" type. 3x2½ $10.00
GARNIERITE, New Caledonia. Brilliant green, minutely mammillary. 2x2 ..... $3.00
TRIDYMITE, France. Micro. xld. on rock. 3x2 ..... $5.00
CYANOTRICHITE, Arizona. Micro. xld. with some Brochantite. 2¼x1¾ $3.50
SERENDIBITE, Johnsburg, N. Y. Disseminated in rock. 2½x2 ..... $3.00
GEOCRONITE, Sala, Sweden. Xlline. mass. 2½x2 ..... $3.50
STANNITE, Cornwall. Massive with some Quartz. 2½x2½ $3.00
LOVCHORRITE, Kola Peninsula. Xlline. mass. 2½x2 ..... $3.50
URANOPILITE. Wolsendorf. Densely coating rock. Brightly Fl. 2½y2 ..... $12.50
PHILLIPSITE, Rome, Italy. Xld. in spheres on rock. 3x2 ..... $2.50
INESITE, Langban Xlline. masses in rock. 3x2 ..... $2.50
SCHWARTZEMBERGITE, Peru. Xlline. with Percylite, etc. in rock. 3x2½ $3.50
MARSHITE, Chuquicamata. Small xls. on matrix. 2x2 ..... $6.00
SIDERITE, Cornwall. Xld. on rock. 3x2 ..... $3.00
CHABAZITE v. PHACOLITE, Australia. Twinned xls. on rock. 3x2 ..... $2.50
BARYTOCALCITE, Cumberland. Xld. and xlline 2½x2 ..... $2.00
CUPRITE, Cabre, Cuba. Xld. on matrix. 3½x2½x2 ..... $6.00

HUGH A. FORD

Office and Showroom: 110 Wall Street New York 5, N. Y.

Telephone: BOwling Green 9-7191

No list furnished, but inquiries for specific minerals welcomed.

ROCKS and MINERALS

PETER ZODAC, Editor and Publisher

America's Oldest and Most Versatile Magazine for the Mineralogist, Geologist, Lapidary.

Published Bi-Monthly

OFFICIAL JOURNAL

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CHIPS FROM THE QUARRY

Coming Events

March 2, 3, 4, 1956 — Phoenix Gem and Mineral Show, Arizona State Fairground, Phoenix, Ariz.

March 17, 18, 1956 — Third Annual Symposium, Mineralogical Society of Pennsylvania, Doylestown Armory, Doylestown, Penn. For Information write, Mrs. Otto Bauhof, 352 Church Lane, Philadelphia 44, Penn.

June 8, 9, 1956 — Wyoming State Mineral and Gem Societies Show, Laramie, Wyo.

June 14, 15, 16, 1956 — Rocky Mt. Federation of Mineral Societies Show, Rapid City, S. D.

July 12, 13, 14, 15, 1956 — Midwest Federation Convention. Home activities Bldg., Minnesota State Fair Grounds, St. Paul, Minn. LeRoy Peterson, Program Chairman, 2626 Riverside Ave., S., Minneapolis 6, Minn.

Sept. 28, 29, 30, 1956 — Eastern Federation Convention. To be held in Baltimore, Md. Host — Gem Cutters Guild of Baltimore.

Boodle's Mineral Museum featured by writer as a fascinating Mineral 'Flower Garden'

GALENA SENTINEL-TIMES, in its issue of Oct. 27, 1955, had a two-column item, illustrated with two photos, featuring one of Kansas' most colorful mineral collectors and dealers—Boodle Lane, of Galena, Kans. We learn from the item that Mr. Lane has been a dealer for 28 years, has a personal collection of 3500 specimens, and that part of his huge mineral stock is arranged to form unique "flower beds" adjoining his home, a mile west of Galena. The specimens in the "flower beds" come from nearby lead and zinc mines as well as from many scattered points in the nation; most of the specimens are brilliantly colored and they are in all sizes and shapes.

Here is the portion relating to the "flower beds."

"If you happen to be driving into Galena from the west on Highway 66, about a mile west of this city, you'll be startled by a brilliant display of what appears to be a mass of flower gardens.

"But the flower beds are everlasting, for they are of mineral specimens from lead and zinc mines in the area and other points all over the country.

"They adjoin the home of Boodle Lane, dealer in minerals."

Mr. Lane has resided in Galena for 55 years, is a retired miner devoting his entire time now to dealing in minerals. He is, and has been for years, a subscriber of ROCKS AND MINERALS.

Midwest Federation Convention — 1956

The American Federation of Mineralogical Societies with the Midwest Federation of Mineralogical and Geological Societies will hold the Ninth Annual Convention in the Twin Cities in 1956.

Date — July 12-13-14-15, 1956.

Place — Home Activities Building, Minnesota State Fair Grounds, St. Paul, Minnesota.

Host Club — Minnesota Mineral Club.

This will be the largest Gem and Mineral Show ever held in the midwest. Our exhibition facilities are the finest with three interconnected exhibition type buildings; 750 feet of tall glass-front cases for display (all enclosed and with locks); ninety (90) commercial booths; unlimited free parking; free camp grounds and trailer park and many, many more excellent features that will be advertised more fully in the weeks ahead.

LeRoy Peterson
2626 Riverside Ave. So
Minneapolis 6, Minn.
Program Chairman

Clippings Received

R&M has received many clippings of mineralogical interest during the past year but top honors for the largest number received go to

Raymond Conover, Stone Ridge, N. Y.
T. Orchard Lisle, Flushing, N. Y.
Charles Johnson, Frankfort, Ky.
Kelvin Green, Brisbane, Australia.

We are deeply grateful to these subscribers and do hope they will continue to send in clippings.

Find any Minerals lately?

R&M is always in need of little items on new finds in your state. If you have made some interesting finds, let us know what and where (give locality and county, if locality is a mine or quarry give its name and product).

We are especially desirous of obtaining mineral items on Alabama, Delaware, Mississippi, Nebraska, North Dakota, and Rhode Island. Please send them in!

DINOSAUR TRACKS OF THE CONNECTICUT RIVER VALLEY

By Bernard W. Powell

341 Glenbrook Road, Glenbrook, Conn.

From New Haven (Conn.) on the south to Gill (Mass.) on the north, stretches the section of the Connecticut River Valley known for the occurrence of fossil tracks. Pre-Triassic structure for most of this region consisted of ancient crystalline rocks. With Triassic times, some 170,000,000 years ago, large scale faulting throughout the valley resulted in a more or less continuous trough structure with which are associated large sheets of trap rock, and many layers of reddish, sedimentary sandstones. Throughout the southern part of the valley, these sandstones are apt to contain fossil footprints. Amateur paleontologists will find the search for these tracks well worth the effort involved, and a method I shall describe will enable them to "collect" as many of the various tracks as they like—even though they occur in large and unmovable slabs of stone.....

Actually, the tracks have been intensively studied long since, and among the professionals are somewhat of a "classic" in North American geology. To the earnest amateur collector, however, they are subjects of intense interest. As many are quite well preserved and distinct, they do not require extensive technical knowledge to trace out and comprehend. Many are exposed in easily reached quarries; the vastness of the region must harbor many ravines, outcrops and other sites where good specimens could be observed.

The great naturalist, Edward Hitchcock, first described the tracks in 1836. His opinion, however, was wholly erroneous for he wrote: "I do not doubt that these tracks were made by birds that were genetically different....." His bad guess appears to have survived the passage of time almost as well as the fossils to which it refers—if one takes seriously the opinion of many laymen dwelling throughout the region. Those interested in a general work will find Dr. Richard Swann Lull's book on this subject to be well-witten and concise. His is a knack of combining rather technical discussion with very literary and humorous passages, and will afford anyone interested in the subject a good background. Copies of "*Triassic Life of the Connecticut Valley*" were formerly available as Bulletin No. 24 in the State Geological and Natural History Survey obtained through the Connecticut State Librarian (Hartford, Conn.). Maps and detailed drawings of tracks and *Anchisaur* anatomy enhance Dr. Lull's book.

Dozens of species are known from the tracks. One quarry familiar to the author contains prints from no less than six different species, and this in an area no larger than a good-sized living room. Range in size is remarkable, too. One specimen in my collection could be easily covered with a fifty-cent piece; other prints are quite deep and measure close to ten inches in length.

Without getting lost in a maze of taxonomy, it is safe to say that most of the tracks are from the family of *Anchisaurs,* though other forms are known. The *Anchisaurs* are broadly ancestral to the more spectacular "dinosaurs" of later Mesozoic ages—the ponderous beasts that figure so large in "Hollywood-style" presentations on the younger days of our planet. The *Anchisaurs* were bipedal reptiles, shaped something like a kangaroo. They had powerful hind legs and a thick, powerful tail which aided in balancing as they ran. (Trail marks of these tails are also present at some sites). They were small (five to eight feet long) creatures, graceful and given to rapid, running travel. The nature of their tracks makes that quite clear. As they crossed and recrossed the mud flats of the Connecticut trough, they left behind a remarkable record of their existence. Many are the bizarre and

Plaster of paris is then mixed according to directions on the package. The trick here is not to add too much all at once so that it doesn't "ball" in the mixing dish and refuse to blend with the water. The mix is poured over the track. A good hint is to first jounce the mixing bowl on the ground so as to bring air bubbles to the surface. Any bubbles trapped against the face of the mold will seriously impair detail of the track. Bubbles in the inner portions of the cast will only weaken the mold.

When the plaster has firmly set and is cooled down from the hydrothermic reaction, it may be gently separated from the track. You will now have a perfect duplicate in reverse (a negative) of the

Left central portion of the photograph shows a large track in the Connecticut Trias. Lower right, and clearly picked out by an early-morning sun, is a three-toed track of a smaller species. This track was copied by the author and has been duplicated many times in casting plaster by him. Many readers of R & M own casts of this track. Scale: small track about 7" long.

Just to the right of the geologist's hammer is the large print of a Triassic dinosaur in the redbeds of a Connecticut quarry. The track is three-toed and faces away from the observer. Just above it and to the right, are two smaller three-toed tracks pointing opposite to the large track (towards the observer). These latter tracks were made by creatures known as *Anchisaurs*. Tracks date from about 170,000,000 years ago. Near Durham Conn.

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footprint. Pick up a piece of scrap rock from the area to serve as a color guide and the field work is done. At home, a similar process is followed in casting back into the original or positive form of the footprint. One's own ingenuity must come to the fore here; I cast my prints in rectangular slabs which I later mount in rabbeted wooden frames. Instead of using the original mold as taken from the quarry, I make up a production model in plastics and scarf into one corner some linotype slugs identifying the specimen and its strata. The plaster casts therefore not only bear the full imprint of the "dinosaur" but also a nicely lettered legend. I also offset printed a fuller explanation about the specimen on a sheet of paper and glued this to the back of the framed track. At first I tried to color integrally the track with oxide colors (dry colors) bought at a local art store. These are colors advocated just for plaster, but I had very little success with them. I finally settled on a dull finish paint and the result was very gratifying. As I say, various collectors will like to try out their own methods of mounting and displaying and will no doubt work out alternate methods of coloring and casting. There is a liquid latex product available at most art stores that greatly simplifies taking the impression of the original mold. One gets a flexible rubber mold that takes great detail and is not breakable. A back-up mold for this rubber liner is made prior to actual casting. Release problems are eliminated with the rubber too, as it will not stick to anything. Plaster will sometimes do this and will seize up to the track or a casting in such a manner that it is all but impossible to separate without irreparable damage to the items.

I understand there are several vinyl plastisol compounds on the market that are said to be superior to the rubber as mold impression-takers. I have not had firsthand knowledge of them. Drawback of the rubber latex compound is that it is slow-curing and must be painstakingly built-up to necessary mold thickness before a satisfactory impression can be had.

Such then is the manner of taking fossil impressions. This method, in my estimation, has much to recommend it. It could be applied to impression-taking of many forms other than fossil tracks. It leaves undamaged, those irreplaceable phenomena of nature that others may enjoy *in situ*. It permits uniform and novel methods of mounting and display—with identifications cast integrally with specimens. It gives those who like a little handicraft with their collecting a chance to work in plaster and in wood when making up frames. The weight saving factor has already been indicated.

Those interested in visiting the quarry where we took our casts may easily visit same. The Merritt Parkway through Connecticut crosses under U.S. Highway Alt. 6 north of Wallingford, Conn. Motorists driving east (toward Hartford) at this point should turn off on 6 towards Middletown. Several miles down this highway they will come to a fairly straight stretch marked only by a diner on the left-hand side. Opposite this diner will be a road going to the right and sign pointing to Durham. If I recall, this is Route 147. A few miles down this, one eventually goes down and around a steep curve to the left. Near the bottom of this curve there is a road turning off the main route and going uphill to the right. I cannot recall the name of the road, but it leads up the hill and towards a rest home of some sort—called "Happy Acres" or some such name. You will recognize this by many nicely kept buildings on both sides of the road—and a nice swimming pool near the main development on the left. About one and a half miles beyond this place is the quarry—on the right. A sign nailed on a tree used to indicate it as you approached it, but I believe it is now gone. Quarry is small but has many nice tracks. Incidentally, across the road in the nearest farmhouse lives a Mrs. Williston. She is the daughter of a famous American geologist and can tell those interested many details about the surrounding countryside. This quarry is only one, and a lesser one at that, of many throughout Connecticut and Massachusetts where the tracks of the long-vanished *Anchisaurs* may be seen.

THE CAMERA—BEST ADDITION TO ANY MINERAL COLLECTION

By J. Norman Convery, C.E.
R.D., Far Hills, N. J.

My mineral collection contains somewhere in the neighborhood of 2300 catalogued specimens—and many pictures. These pictures are in some cases the very cream of the displays you can set up. If you can handle a camera at all, be sure to use it when you go out prospecting for minerals.

One very useful spot for a camera is the finding of a large crystal that you could never hope to get. I have one very fine example of this. Dave Seamen and I were at the Toll Gate Mica Mine at Middletown, Conn., Dave pointed out a microcline crystal in the wall that measured over 30 inches across; how long it was is anyone's guess. The entire wall where the crystal was located has since been blasted away and the new quarry wall is about 50 ft. further back. I don't have that crystal in my collection, but I do have a picture of it and Dave Seaman is standing pointing to it to give it scale. This is a 3-D Kodachrome. Also have a wonderful picture of the shaft at Toll Gate showing the pegmatite contact. This contact is straight as an arrow and very interesting. It too is on film. It has been blasted out now but I still have it.

For a short period during the summer of '54 the famous Strickland Quarry near Portland, Conn., was pumped out and it

David M. Seaman coming up out of the shaft at one end of the Toll Gate Mica Mine, Middletown, Connecticut, September 1954. Since then there was a slide completely burying the underground shaft.

was possible to get down near the bottom. Dave Seaman, Dick Schooner and myself collected many beautiful lithium minerals out of a pocket near the bottom. Today Strickland is once more about full of water—may never be pumped out again—and I'm certainly glad to have a whole series of shots showing what a really tremendous hole lies below the cold black water now up quite high on the quarry walls. I not only have my minerals, I also have the location on film, a spot that may never again be visible to a collector.

Pictures were a great help to me while I was making my book of maps of well-known mineral locations. Many a landmark was verified when the piece of film showed the true answer. In fact, some of the shots contained a little fun not planned when the picture was taken. For example, I took some pictures at the Siderite Mine at Roxbury Station, Conn., and came up with one that became a real puzzler until we projected the slide and discovered that the odd red "deposit" in the center of the dump was a red hat on the top of one Ronald Januzzi's head and he had dug himself down to this level. Thus was born our snide remark, "If you see a hat, don't step on it—it's probably Januzzi."

People who collect minerals are at times asked to give a talk and demonstration to groups of Boy Scouts, Girl Scouts, school organizations, clubs, etc. I myself have done this a few times and have found that pictures (colored slides projected, are best) hold the attention and prove to be of great interest to all. Besides my location pictures I keep an eye out for all the different types of geological features I come across that I know will help create interest in my audience as well as add general interest to my collection.

For your own pleasure, not necessarily to be forced on an audience, you can also take record shots of the person or persons you are collecting with. All in all it seems to me that "rocks" and "film" are a good pair to go hand in hand.

More fun but a little trickey, is to take pictures of your pet fluorescents under the UV. Here is a good starting point; work "up" or "down" from this, depending on your results: Camera set at f8 about 36" from specimens being lighted by a hand model Mineralite. Exposure, 2 minutes. Any phosphorescent pieces, take out; they come up too bright and tend to spoil the picture. I have tried only a few of these shots but I intend to try some more. Take the shot in regular light, then take it under the UV without changing the position of either the camera or minerals. This makes a nice set to show people who have never seen the phenomena of fluorescence.

Last but not least, the camera can be used to copy old maps and other interesting material that is not available to you at all times and you would like a copy of. If you lack the ability and equipment to do copy work, it can be done by a professional at a reasonable cost.

So keep your camera loaded and pack it with your pick when you do your rock hunting.

COLLECTORS CORNER

For the special benefit of collectors who may be living in areas far removed from other collectors, we are opening up this feature. In this corner, a collector may have his name and address listed for the purpose that other collectors may write him in the hope that through correspondence, exchange of ideas and specimens, new friendships may be formed. Listings are free. Here is the first listing:

Walter Scott Gray, Jr.
417 S. Perry Ave.
Denison, Texas

It was Mr. Gray's letter of Nov. 30, 1955, that this feature is indebted to. Here is part of the letter:

"I am very much interested in mineral collecting as a hobby; however my knowledge of the field is very limited. Since there seems to be no other collector in my immediate area, I need to be in contact with others so that I may pick up new ideas. This is one of the reasons I have subscribed for R & M."

COLLECTING ROCKS AT SCHOOL CAMP

Herbert Montgomery
Box 255, New Castle, Ind.

At our school camp we try to use the out of doors as a laboratory for studies and activities that begin in the classroom. In school the pupils read and talk about subjects that they can see and experience in reality at camp.

One of these areas has been rocks and fossils. We had noticed for some time that elementary classes had done a considerable amount of study on the surface of the earth. But usually no attempt is made to connect this general study to the topography of the immediate surroundings of our town and school yards. Likewise in many rooms nothing more was done than admire the rocks that the children brought to school.

This then seemed like the proper time at school camp to bridge the gap from an abstract study of the earth's surface to an everyday knowledge of the rocks and pebbles that were to be found in abundance at camp. So during the winter and before the next session of school camp the following fall, I began to do some study on rocks. First I selected a few of the best books I could find. Then I began to acquire some good rock specimens. Some I bought from supply houses and others I collected around the country side. Next I started making some displays that would stand upright and could be viewed by an entire classroom. One of the first of these was a family tree of rocks. This held samples of the three kinds of rocks; sedimentary, igneous, and metamorphic. It has probably been used more than any other exhibit, and seems to be a favorite of the elementary classrooms. By this time my interest in the field has developed almost to the hobby stage. As school children learned of my interest in rocks, they began to bring me choice specimens from all over the country.

The next problem was how to make that part of the school camp program best integrate rock and fossil study with the textbook work of the classroom. Up to this time we had collected rocks and fossils at camp but without much system, and with little or no identification. So I made a display board of the rocks and fossils of our area. The specimens were fully described and identified. The rocks of course are not native to Indiana but were brought down from the north by the glaciers. So the entire story of the work of the glaciers came into the picture. For the rock collection I selected twelve rocks that are quite easily found and at the same time were of a sufficient variety to make a typical collection. They consisted of granite, sandstone, limestone, shale, quartz, quartzite, jasper chert, calcite, gneiss, schist, and conglomerate. The fossil collection contained four different brachiopods, crinoids, cup corals, compound coral, cephalopod, pelecypod, gastropod, bryozoan, and trilobite.

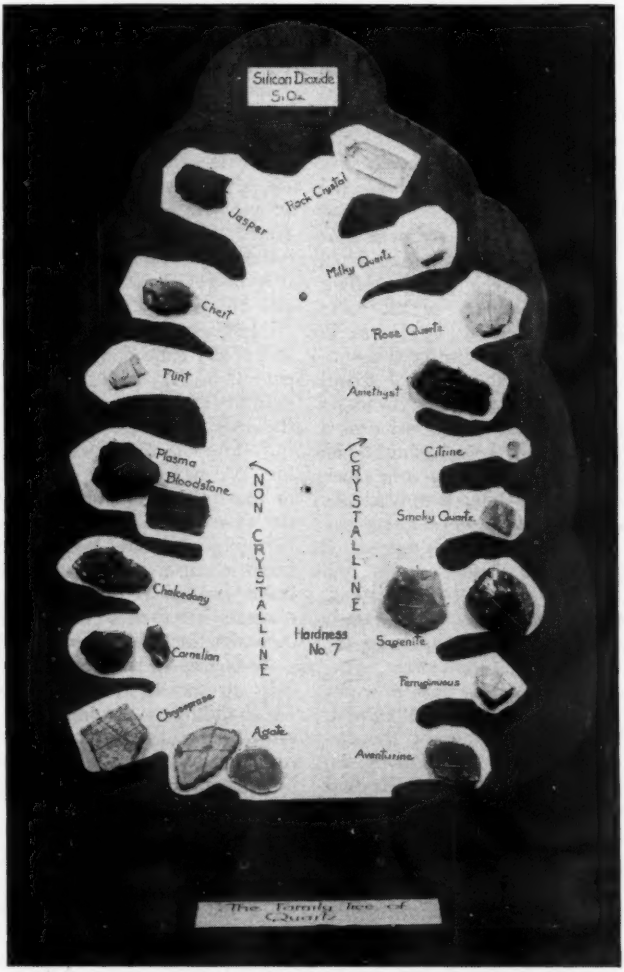
Next came the problem of how to mount the collections made by the campers. I finally found a hose box that held six pair of ladies hose, to be about the ideal size. One of the local clothing stores saves all of these boxes for me. We have a title sheet that is glued to the top of the lid, and a sheet with the specimen names for sticking to the bottom of the box. We sell them to the campers for the printing costs. The two boxes are very highly prized by the campers after they have collected and mounted their rocks and fossils.

Two little demonstrations at camp that help to develop interest in rocks are fire building with flint and steel, and arrowhead making. At our opening campfire one of the leaders lights the fire by the pioneer method of using flint and steel. We explain how it is done and the fact that there is plenty of brown chert to be found here that can be used to strike sparks. This sets off an interest that fills the pockets of the campers for the rest of the week, and they go around testing this and that piece by striking it a glancing blow with the back of their knives to see if it will make sparks.

Making arrowheads with thin slivers of chert, a leather palm, a pushing board, and the point of a deer antler; also helps create interest in the various kinds of rocks that can be used for this purpose.

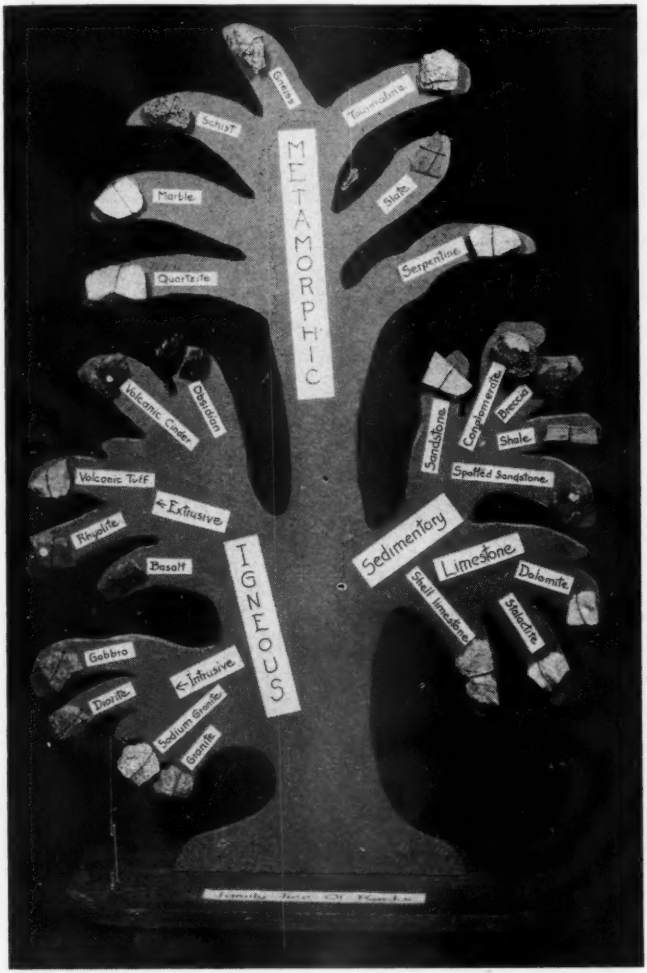
We could not of course stay out of the mineral part of this fascinating study. As a part of a classroom display I developed a board that holds mineral specimens in a plastic bottle. They are arranged by groups, showing the various ores from which the metal is obtained, together with a short descriptive sentence telling how the metal is used. The groups are precious metals, basic metals, lightweight metals, and other metals.

An interesting incident happened in connection with the precious metals group. The gold series has three bottles, with gold on quartz, gold ore, and

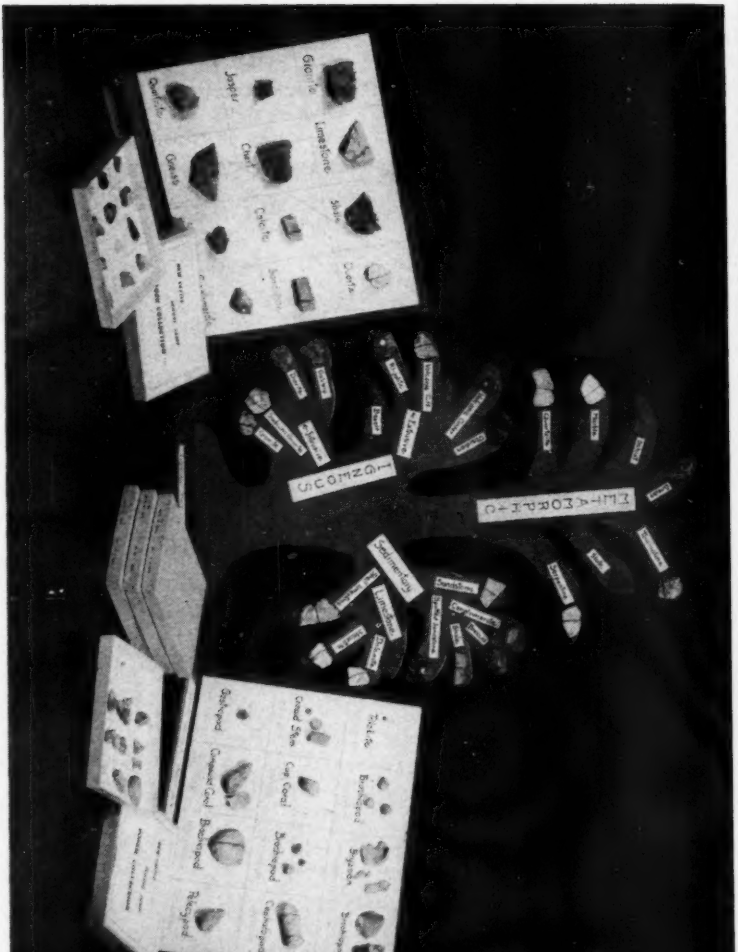


The family tree of quartz.

gold nuggets. I was talking to a group of camp leaders at a workshop at Nashville, Tenn., and had explained that my nugget bottle was empty for obvious reasons. At this point one of the group, Miss Alice Heap, a teacher from Knoxville, passed around a necklace from which was hanging a gold nugget. She explained that it was from California and the gold rush of '49. When I had finished my talk she presented me with the nugget, saying that she had been afraid of losing it for a long time, and that I would make better use of it than she could. So now my gold group is complete.



The family tree of rocks. Note: top right full name should be 'tourmaline schist.'



Rock collection (left); family tree of rocks (center); fossil collection (right).

I do not know where our little study of rocks, fossils, and minerals will end, but it certainly contributed much to our school camp program and the subject of science in the elementary classrooms in our city.

World News on Mineral Occurrences

Items on new finds are desired. Please send them in.

Abbreviations: xl—crystal xled—crystallized xline—crystalline fl—fluoresces ph—phosphoresces

ALABAMA—Graphite is known to occur in commercial quantities at Gregory Hill, Tallapoosa Co., Ga.

ARIZONA—Is our face red! It is and should be because in the July - Aug. 1955 issue we made a very stupid blunder, when we said that the location for a limonite pseudo after pyrite xl was Crystal Hill in Plumose *County,* Arizona. No one knows better than we do that there is no such county in Arizona and we humbly apologize to the good people of Arizona for our mistake. Quite a number of readers brought this error to our attention and we are only too glad to correct it. However, to our greater embarressment, we could find neither the specimen nor the note that went with it, not only to rectify the error but to learn just how the mistake was made. We therefore had to petition the donor of the specimen, Earl U. Mayer, 1753-1st St., Yuma, Ariz., for assistance. Here is his reply, dated Dec. 7, 1955.

"The correct location for the limonite specimen is Crystal Hill, *Plomosa Mts., Yuma* Co., Ariz."

ARKANSAS—R. H. Beck, 3413 Burton St., Ft. Worth, Texas, sent us two specimens which were found 2 miles west of Hot Springs, Garland Co., Ark. One specimen was a coarse xline, white and gray mottled calcite; the other a dark gray (almost black) compact limestone.

CALIFORNIA — Col. Clarence M. Jenni, 3129 Chadwick Drive, Los Angeles 32, Calif., sent in the following item, dated Oct. 31, 1955:

"We have been finding many very rare minerals at Crestmore, Calif. Fine xls of scawtite, afwillite, and plazolite xls near 1" across. Also quantities of many of the new unnamed varieties which previously have not produced enought material for description."

The limestone quarries at Crestmore, Riverside Co., Calif., considered to be the 3rd greatest mineral locality in the world, outranked by Langban, Sweden (1st) and Franklin, N. J. (2nd), continue to produce interesting minerals. We hope Col. Jenni will keep us informed of future finds at Crestmore.

COLORADO — The following letter, dated Nov. 3, 1955, was sent in by Pat Fancher, c-o Andersons, Darwin, Calif.:

"Your description of the banded gneiss in Sept. - Oct. 1955 R & M (p. 490) made me remember something similar in the Silverton (San Juan Co.), Colo. We call it 'laminated quartz'.It is the white milky quartz of the district and a black sphalerite in alternate bands each about ⅛" wide and remarkably consistant. Besides a show piece, the specimens make the rockhound pause to wonder how it could have been deposited in this manner.

"It is found on the Oceola dump which can be reached by Cadillac. Also, if you have a 4-wheel drive outfit, on the Lucky Jack dump. The Lucky Jack and the nearby Red Cloud are located high above timberline with no timbered slopes in sight. It's like being in a different world. Dumps are numerous up there but the two above yield pyrites in form of a many rayed star in the white quartz. Though it resembles marcasite in structure it was demonstrated by Ransom to be pyrite. I was talking to a rockhound group once and a mining engineer who was present continually interupted with "exactly the same thing—iron sulphide." I could have pointed out that diamond and graphite are exactly the same thing —

pure carbon.

"The above mentioned F.L. Ransom, incidently, was a rockhound who predates us all. He was with the U.S.G.S. in the Silverton Mountains in the last years of the 19th century. His report deals adequately with geology but he waxes enthusiastic as he describes the minerals in the various mines. If ever I am in Silverton again, with time on my hands, I'll go to the library and write down some of his observations. It might be interesting for R&M to hear this voice from long ago."

CONNECTICUT — Neal Yedlin, 129 Englewood Drive, New Haven, Conn., sends in the following notes in his letter, dated Nov. 7, 1955:

"Just a note regarding a new find in Connecticut for your World News on Mineral Occurrences column. You've probably heard of the great quantities of bertrandite specimens found at the Strickland Quarry, at Portland, Conn., last year. Walter Bagley spotted the stuff in the most recent cut between the entrance to the pit and the road going to the top of the hill. The material was badly iron-stained (a simple means of finding it) and occured as groups of crystals heavily investing albite, in segments almost a foot square.

"But another locality in Connecticut for bertrandite turned up, heretofore unreported. On October 15th last I visited the Toll Gate Quarry, just 2½ miles south of Middletown, on Rout 9.

"Dave Seaman, of the American Museum of Natural History in New York, told me he had collected beryl, quartz and feldspar crystals, as well as manganocolumbite and manganapatite. I guess I must be slipping, for I found nothing to speak of among these. I did, however, come up with a large group of superb bertrandite crystals, in a cavity about 4" x 4", also badly iron-stained. Soaking the material for 48 hours in an oxalic acid bath removed the stains and made the crystals clean, clear and lustrous.

"The crystals are flattened tabular, some so closely grouped as to appear accordian shaped. Associated are secondary albite crystals, and altered cubes of pyrite.

"The Connecticut literature does not seem to have this mineral listed for the locality. Or perhaps the place had another name previously.

"Specimens are now in the Smithsonian (U. S. National Museum) in Washington, in the micro-mount collections of Paul Desautels of Baltimore, Louis Perloff of Winston-Salem, N.C., Walter Bagley of Stamford, Conn., and of course, in my own.

"Best wishes, and perhaps a soon-to-be series of columns by the Micro-mounter."

DELAWARE — Diatomaceous earth (an eathy variety of opal) occurs on the southern tributaries of Appoquinimink Creek in New Castle Co., Del.

FLORIDA—From Sarasota (Sarasota Co.), Fla., we have a bluish petrified bone, 1 x 3 inches in size, that was sent in by Howard B. Graves, Jr., 826 S. Ingraham Ave., Lakeland, Fla.

"These are found in a dolomite quarry. They are generally black at this locality. In Hawthorne Formation of Miocene age." — on label.

GEORGIA — The following item is taken from *Georgia Mineral Newsletter*, Summer 1955, p. 77 (Published by the Georgia Geological Survey 425 State Capitol, Atlanta, Ga. — Dr. A. S. Furcron, Editor).

"Apatite near Nachoochee, Ga."

This mineral was discovered on a field trip taken in May in north Georgia by some State soil scientists and led by Dr. A. S. Furcron. The mineral occurs in coarsely crystalline biotite gneiss which has been thoroughly injected by pegmatitic granite. The sample was picked up by one of the scientists and has been sent to us by Prof. H. F. Perkins, Department of Agronomy of the University of Georgia.

The mineral is clear with a slight greenish cast and is of gem quality. The sample was collected in a fresh cut on the north side of the Clarkesville Nacoochee Highway (Ga. 17), several miles southeast of Nachoochee. It was examined by Dr. Vernon Hurst who reported that it is

a high calcium apatite exhibiting high birefringence.

IDAHO—In the vicinity of Iron Mountain in Washington Co., Idaho (6 miles east of Mineral) great bodies of hematite are found, both in huge loose blocks and as lenses of xline hematite in a siliceous porphyry intrusion 100 feet wide.

ILLINOIS — The following letter, dated Nov. 5, 1955, comes from a high school student, Kenneth Vaughn, 311 E. Central Blvd., Kewanee, Ill.

"The area around Kewanee (Henry Co.) was never meant for mineral collectors and the only nearby collecting locality is a strip mine (coal) which are common to this area. This yields many fine fossils which I do not collect, and also quite a few concretions with calcite filling cracks. These concretions (known as septarias) are not pretty but they do have quite a bit of calcite in them (no crystals)."

INDIANA—Walter Reeves, Rt. 3, Greencastle, Ind., has sent in a very nice quartz geode lined with colorless calcite xls. The specimen was found in a road cut on Rt. 43 near Harrodsburg, Monroe Co., Ind.

IOWA—The following letter, dated Oct. 19, 1955, comes from Richard Tripp, 2811 West St., Ames, Iowa.

"Since I started reading R & M (a very interesting magazine) over a year ago, I have stormed all over Iowa causing more erosion on its lime rocks than Mother Nature could do in 100 centuries and I think it has finally paid off.

"I have sent you a brand new 'first' that you may wish to add to 'World News on Mineral Occurrences' column. The specimens sent are aragonite and all react under both long and short wave and phosphoresce well under short wave. All the specimens sent you are typical of the locality and may see for yourself the brilliance of the fluorescence.

"The occurrence of this new find is rather interesting. It occurs in large jointing cracks in massive to thin-bedded limestone of the Kinderhookian Series of Mississippian age at one of the old abandoner limestone quarries near Legrand (Marshall Co.), Iowa. These joints are filled with a dark red-brown clay. By all appearances, most of the aragonite does not touch the inside faces of the joints indicating that the mineral may have formed after emplacement of the clay. It would seem that the aragonite-bearing solutions leached out the clay as deposition of the aragonite took place. I managed to take out about 1000 lbs. of this material, some of the blocks weighing as much at 400 lbs. and all of it pure massive and needle aragonite with little or no matrix."

The specimens received are pale creamy cellular masses, one encrusting brown-yellow ocher. Their fl. is very brilliant—bright creamy yellow.

KANSAS—Nice specimens of fossil fern (*Pecopteris*), dark brown in color and embedded in brownish Lawrence shale (Pennsylvanian formation) have been found at Ottawa, Franklin Co., Kansas.

KENTUCKY—For many years Elliott County, in eastern Kentucky, has been known as a possible source of diamonds, and numerous attempts have been made in search of them. The reason for these many attempts is that in Elliott County is found a rock, called kimberlite, which is identical in character to the famous diamond—bearing kimberlite of South Africa except for one difference—the South African kimberlite contains diamonds while the Kentucky kimberlite does not (at least no diamonds have been found as yet).

Charles Johnston, 307 W 4th St., Frankfort, Ky., has sent us a clipping from the Nov. 13, LOUISVILLE COURIER JOURNAL (Louisville, Ky.), which informs us that another attempt is being made to find diamonds in Elliott County—this time by core drilling. Part of the clipping (a long one with 5 illustrations, written by Gerald Griffin), reads as follows:

"Sandy Hook, Ky., Nov. 12— Perhaps there's no gold in them thar hills. The hills around here, that is.

"But there's a chance that there's some-

thing even more valuable—such as diamonds.

"Already minute particles, apparently diamonds, have been brought to the surface. And so have many small red stones said to be garnets.

"And, strangely enough, the name of the geologist in charge of the core-drilling operation is Diamond. Woodson Diamond, he is.

"The drilling for gems is in Elliott County, financed by people there, including Circuit Judge John Keck, former State Highway Commissioner.

Down 300 *feet*

"Now down to about 300 feet, the drillers think they may have something. At least they have some evidence.

"The place where they are drilling looks as if it might be the crater of an extinct volcano. It is a saucer-shape valley rimmed all round with hills. And there's kimberlite there. That's the geological sturcture in which diamonds occur.

"Here is what the geologist has to say about it.

"So far as is known at present, the only occurrence of kimberlite outside of the southern portion of Africa is in Elliott County, East Kentucky.

Similarity Remarkable

"In the region lying between Ison's and Creechs Creek is an area in which kimberlite identical with that contained in the South African 'pipes', has been discovered. In both the general mass, as well as the accessory material and foreign inclusions, there is the most remarkable similarity with the South African kimberlite. So much that it is impossible to distinguish the Kentucky rock from that of the South African 'pipes.' Not only are similar minerals to be found therein but they occur in a distinctly similar manner.

"Every special characteristic of the South African minerals can be duplicated abundantly in the Kentucky kimberlite.

"The garnets, ilmenite, olivine, diopside and mica occur in the same form, and show the distinct kelyphite rings so characteristis of the South African occurences. The included masses of foreign rocks are similar in composition and form.

"The weathering of the rock is the same and the crater-like mode of occurrence of the pipes is identical.

"From personal examination, the mineral matter filling the craters near Ison's Creek is identical in every detail with that occuring in the 'pipes' of South Africa. And further, that the craters are similar in structure and contain the same accessory minerals and included masses as those in which diamonds are found so abundantly in the Kimberly and Pretoria Districts (in Africa).

"So far," Diamond reported, "there is only legendary evidence of the occurrence of diamonds in this spot (Elliott County), yet the fact must not be overlooked that, though the Transvaal (South Africa) possesses the richest diamond mine in the world, for over 35 years existence of diamonds in the Transvaal was as legendary as that of the Kentucky diamonds at present."

We hope Mr. Johnson can send in more reports on the progress made in the Elliott County diamond field.

LOUISIANA—Brownish pebbles of jasper have been found in the terrain around Jennings, Jefferson Davis Parish, La.

MAINE—Some few months ago we received the following item from Ernest E. Fairbanks, 44 Carll Ave., Old Orchard Beach, Me.

"I should have included a new occurrence of beryl at Dayton, Me., although until more blasting is done it would be difficult or impossible to obtain more crystals. I have collected here myself and have seen golden beryl crystals in some small hand specimens along with aquamarine. There has been some talk of opening a mica prospect nearby.

"Dayton is in York County between Hollis and Lyman. Incidently this same pegmatite which was blasted in Dayton also outcrops in Hollis and beryl crystals have recently been found there as well."

MARYLAND—John S. Albanese, P O. Box 221, Union, N. J., sent in a specimen that comes from the famous fire clay mine at Frostburg, Allegany Co., Md. The specimen (a barite) consists of drusy, transparent xls of prismatic habit coating dark red massive hematite.

MASSACHUSETTS—John E. Kitson, 30 Briggs St., Easthampton, Mass., sends in the following item, dated Nov. 2, 1955:

"About 2 years ago, or more, after a collecting trip to the Lane quarries with friend, Joe Rapalus, we discovered while cleaning our datolite specimens that we each had one with a group of radiating *rose* quartz xls. The xls were single termination, about 1½" long and ¼" wide in a group of five or six. It was quite evident that the two specimens were halves of a single one which we had broken open. We think that this is the first reported find of rose quartz xls in Massachusetts. Mr. Leo Otis of the Springfield Museum and Dr. B. M. Shaub of Smith College also believe this to be true.

"Too bad that the fabulous mineral collecting at the Lane quarries has been so definitely forbidden. Our personal stock piles are near the vanishing point."

The Lane trap rock quarries are located near Westfield, Hampden Co., Mass. It is to be regretted that they have been closed to collectors.

MICHIGAN—In his letter, dated Sept. 15, 1955, William H. Shier, 22220 Grove Pte., St. Clair Shores, Mich., calls our attention to an error that appeared in R & M.

"In the World News on Mineral Occurrences in the July-August 1955 issue, page 371, under Michigan, I believe is an error in location. The location is given as near Antrim in Huron County.

"I have collected marcasite in shale in this locality. Antrim is located in Antrim County on the west side of the State. Huron County is at the tip of the 'Thumb Section' on the east side of the State about 175 miles from Antrim."

Mr. Shier is right, Antrim is in Antrim County. Our information was taken from an old Government publication which only goes to prove that sometimes they are not reliable. The locality is in Huron County and apparently near Austin because at nearby Point Aux Barques lighthouse, marcasite (the mineral in question) also occurs in shale. Though we regret the error, we are very glad Mr. Shier called our attention to it.

We wish subscribers in Michigan, and in a number of other states as well, would show more interest in this column and would supply us with notes on mineral occurrences within their respective states so that we would not have to fall back on old government reports.

MINNESOTA—Bulletin 30 (Mineral Resources of Minnesota), issued by the Minnesota Geological Survey, Minneapolis, Minn. (1943) contains, on p. 146, the following items:

"Besides the minerals of commercial importance, Minnesota has many common rock minerals and rare species of interest to collectors. Clubs have been organized in several cities, encouraging amateurs to collect and polish minerals and gems. Probably the minerals best known to collectors are the agates and thomsonites.

"Agates are collected at Agate Bay near Two Harbors and elsewhere along the north shore of Lake Superior. Many are collected from the red drift from the Twin Cities northward to the iron ranges. Some jasper materials from the iron formations are almost as highly prized as the agates. Bright red jaspers are found near Section 30 Mine east of Ely.

"Thomsonites have been collected chiefly from a small boulder beach about six miles west and southwest of Grand Marais. Here the green rings (mesolite?) concentric with the pink thomsonites make the stones especially attractive. More ordinary pink thomsonites are available at many points along the shore."

MISSISSIPPI—Kaolin (China clay) occurs at Iuka, Tishomingo Co., Miss.

MISSOURI—Minerals from the lead-zinc mines at Webb City, Jasper Co., Mo., are sometimes coated with shiny black masses of asphaltum.

MONTANA—H. G. Clark, Box 256, Great Falls, Mont., sends in the following item, dated Nov. 18, 1955:

"Gastroliths or Dinosaur gizzard stones are very common in the clay Badlands west of Great Falls, Mont. Ask any of the local Arrowhead Gem and Mineral Club members for directions."

NEBRASKA—The following item, dated Oct. 24, 1955, was sent in by John Boellstorff, Johnson, Nebr:

"While prowling around in a creek southeast of Talmage, Otoe Co., Nebr., I found a piece of petrified deer antler. The antler was about 6 in. long with one point.

"I sent it to the University of Nebraska to have its age determined. I received it today and they stated that it was from the recent late Pleistocene age.

"Petrified buffalo heads have also been found in the same place."

NEVADA—Nice specimens of xled, pale flesh-colored orthoclase have been found in the Dead Mts., 15 miles S.E. of Searchlight, Clark Co., Nev.

NEW HAMPSHIRE — Handsome specimens of rutilated quartz were once found at Cornish, Sullivan Co., N.H.

NEW JERSEY—Doverite, a new yttrium fluorcarbonate, has been discovered at the Scrub Oaks iron mine at Dover, Morris Co., N. J. The mineral is named for the city of Dover. It was discovered during the course of work being undertaken by the U.S. Geological Survey on behalf of the division of research of the U.S. Atomic Energy Commission.

The new mineral occurs in aggregates mixed with xenotime, hematite, and quartz. The aggregates are irregular—some of them are as large as 1 in. in diameter, and some of them have rims of bastnaesite.

In parts of the mine, doverite constitutes several percent of the gangue. It is anistropic and has indices of refraction in the range from 1.700 to 1.685. No detailed optical data can be presented because of the finely crystalline nature of the mineral.

Doverite is very fine grained and physically inseparable from the other components of the aggregates. Hematite and doverite were leached from the aggregates with concentrated hydrochloric acid, a residue of quartz and xenotime was left.

Doverite is brownish red and constitutes the bulk of the aggregate's, which have a nonmetallic luster and a brownish streak, are brittle, and break with an uneven to subconchoidal fracture. Their hardness *is* 6.5, and the specific gravity is 3.89.—*Science,* July 1955, p. 31.

Editor's Note:—Back in 1920, when the Eastern Mines Development Co., was sinking an inclined shaft at the Scrub Oaks Mine, the contractor's mining engineer was the present Editor of R & M. The ore of the mine is magnetite.

NEW MEXICO—Nice specimens of wire and thread gold have been found in the Baldy district, Colfax Co., N. Mex.

NEW YORK—In his letter dated May 24, 1955 (it got mislaid on us and so was not printed sooner, for which we are very sorry) Walter L. Busch, 43-32 Elbertson St., Elmhurst 73, N.Y. writes:

"Its been a long time since I wrote you last and am dropping you a few lines and perhaps you can use some of the following in your magazine under World News On Mineral Occurrences for New York State. I have been interested for quite some time in the old mineral localities in the vicinity of Mount Adam and Eve near Amity in Orange County, N. Y. I have made many visits to this locality and find it quite interesting. The old granite quarry on Mount Adam is quite easy to find and allanite is quite easily found in the discarded granite on the dumps. The allanite in most cases is altered to a brown oxidized mineral that looks like rusty iron and underneath the thin brown oxidized layer is the typical black allanite. This past week I took a ride out there and was successful in finding the old pit which is about 150 years old that some ignorant foreigner dug in the limestone under the assumption that the iron pyrites in the limestone was gold and silver. It was reported that many crystallized min-

erals abounded in the limestone thrown out. With some digging I believe nice crystallized minerals can be found. This locality is on Mount Eve. I also located the old arsenical iron locality and got a few nice specimens of lollingite. I have an old map about 150 years old which gives the localities to this area including the locality where those big spinel crystals up to 10 inches on a side weighing up to 50 pounds were found. I would be glad to exchange notes with anyone who knows anything regarding the mineral localities in this area and will guide any parties to this locality if the transportation is furnished—on weekends only. For the convenience of your readers who live in the vicinity of N.Y.C. my telephone number is DEfender 5-6973. I would like to know more of these famous oldtime localities in the vicinity of Mt. Adam and Eve and thus would guide any persons interested in this locality. The minerals found are spinel, corundum, augite, hornblende, lollingite, zircon, rutile, etc."

"Early this Spring a friend and myself visited the now abandoned Albany crushed stone quarry, Bethlehem, (Albany Co.), N. Y. Near the fault zone we found an occurrence of aragonite which is fluorescent (light green) and occurs in both crystals (spears) and reniform masses. Also to be collected in the same quarry is strontianite of pure white color, quartz crystals, and transparent calcite crystals."—letter dated Oct. 12, 1955, from Ralph C. Gosse, Minerals & Gems, P. O. Box 3072, Albany, N. Y.

Mr. Gosse sent in a nice specimen of the aragonite collected—a grayish-brown reniform mass.

NORTH CAROLINA—John Hood Summey, 712 Carolina Ave., Gastonia, N.C., sent in the following clipping taken from THE CHARLOTTE OBSERVER, Tues. Oct. 25, 1955, issue:

SHELBY, N.C.—Two natives of Beaver Dam community of Cleveland County have uncovered a vein of rare mineral while mining mica in the area northwest of Shelby. The mineral is columbite tantalite.

This mineral is black, heavy and slightly radioactive in some combinations. Price for the ore at the mine is $4 per pound or $8,000 per ton.

Partners in the mining venture are R. W. Callahan and Will Humphries both of Beaver Dam community and both engaged in mining mica for about three years.

Identification of the mineral was established by federal and state geologists. State Geologist S. D. Broadhurst of Raleigh said Monday morning neither the extent of the deposit nor the quality of the mineral has been fully checked as yet.

He said any excitement about the find at this point would be premature.

He confirmed the identification of the mineral deposit.

Broadhurst said the metal is rare in commercial quantities but is found rather widely. He added that this deposit is the only one of which he knows in North Carolina.

Will Humphries, one of the partners in the mine, said they have uncovered 210 feet of the vein and have not uncovered either end. He and his partner have secured leases and written agreements for working the vein.

The partners were mining mica and found the rare mineral by accident. Humphries said "We will continue to mine mica and any of this rare stuff we find will be so much bonus. We have protected our interests and are going ahead working the mine."

The value of columbite tantalite is high because of its scarcity and because it is a relatively cheap substitute for platinum, Humphries said.

He said he has been told by geologists that the melting point of the metal is 1,700 degrees higher than tungsten.

NORTH DAKOTA—Mrs. Ed. P. Olson, Box 425 Beresford, S.D., has sent in a nice petrified wood specimen which she collected at Dickinson, Stark Co., N.D. The specimen is a gray mass with

a dark brown interior; the gray portion fl. bright red under long wave light.

OHIO—The following note, dated Aug 30, 1955, comes from Clarence C. Willits, 1107 Young St., Piqua, Ohio.

"I am sending you a few specimens from Pugh quarry in Northern Ohio (near Custar, Wood County).

"The calcite crystals, as you will see, come in various shades from very light to very dark. I have never found any crystal-clear ones yet but some are only tinged a little with milky or golden colors and occasionally several shades are found in the same cluster. The marcasite from here is very nice, sometimes in veins, several inches thick."

The following specimens were received:

Barite-beautiful groups of small, light gray-blue xls with small pale golden-yellow calcite xls.

Calcite-beautiful groups of large, dark amber xls.

Marcasite-beautiful specimens, lustrous, xline mass showing tiny marcasite xls and coated with smoky gray barite xls.

OKLAHOMA—Joe R. Wormington, Rt. 2, Pierce City, Mo., in his letter, dated Aug. 7, 1955, writes:

"Do you need items for your 'World News' department? If so, here is one.

"There is an area near Spavinaw (Mayes Co.), Okla., that produces good xl groups of marcasite pyrite, nice banded chert nodules, and tiny quartz xls. None of these specimens are spectacular but they might prove interesting to other collectors.

"If you want more items, just let me know."

Yes, Joe, we want more items. Please be a good fellow and send them in.

OREGON—Mrs. Norris Jensen, 8709 S. W. 56th St., Portland 19, Ore., has donated a nice specimen of coquina limestone whose locality is Summer Lake, Lake Co., Ore. The specimen is a brown and white mass made up of small fossil shells—some brown, others white. It shows no fl.

PENNSYLVANIA—Paul B. Loux, Sr., A-329 S. Main St., Doylestown, Penn., has sent in a specimen of petrified wood which he had collected in his area. It is a grayish-brown limb section 3 inches long, 2 inches diam. A very nice specimen but may not take a good polish.

"My wife, Evelyn, wrote to you about our family's (our son, Bill, also collects with us) hobby in collecting Pennsylvania Triassic petrified wood. We received your note and it is nice to know of your interest in its rarity in this section of Pennsylvania.

"My wife most likely told you that we have found it within a three mile radius of our home (Doylestown, Bucks County), in the fields, streams, wooded sections, and occasionally in old back country road beds.

"Our largest pieces weigh about 80 pounds. Some pieces are only two inches long; colors vary from shades of gray to black or dark brown.

"We have collected about 300 pounds in about 30 years, so you can see that Penn. Triassic petrified wood is rare.

"We are sending you a piece which is rather small and not as interesting as the larger ones, but much easier to mail. This specimen may give you an idea as to the type found in this section.

"If you ever get over this way we would like to have you stop in and see the ones we are really proud of."—letter dated Nov. 22, 1955, from Mr. Loux.

RHODE ISLAND—Green chlorite has been found in quartz veins at Middletown, Newport Co., R. I.

SOUTH CAROLINA — In Oconee County , S. C., 4.2 miles northwest of Tomassee, is Soapstone Hill. On Soapstone Hill is found talc. pearly-white to greenish-white, and lustrous, with massive structure. The deposit has been worked commercially.

SOUTH DAKOTA—Mrs. Ed. P. Olson, Box 425, Beresford, S. D., reports finding thin, black lustrous shale pebbles along the Missouri River near Gayville, Yankton Co., S. D.

TENNESSEE—Carl Seyfert, Jr., Box 1803, Vanderbilt Univ., Nashville, Tenn., informs us that xline ruby sphalerite can be found at the Hoover zinc mine near Readyville, Cannon Co., Tenn.

TEXAS—R.H. Beck, 3413 Burton St., Fort Worth, Texas, has sent in a xline mass of brassy-yellow pyrite. Its label reads—

"Found on Paluskie River, south west (7 or 8 miles) of Glen Rose, (Somervel Co.), Texas.

UTAH—Fibrous masses of alum—which look like asbestus—are found in the Alum King Mine, in Piute Co. (5 miles south of Joseph), Utah. In the mine the alum is a beautiful blue but on exposure to the air it changes to a yellow or snow-white.

VERMONT—Wm. H. Robbins, RFD 1, Hampton, Conn., has collected a number of interesting specimens at Bridgewater, Windsor Co., Vt. One of them was a black xl mass of tourmaline associated with massive smoky quartz.

VIRGINIA—Two very fine specimens of unakite, one a choice slab and the other a beautiful cabochon, and both consisting of green epidote and pink feldspar, have been donated by Genuine Gems, P. O. Box 1531, Atlanta, Ga. The specimens come from Syria, Madison Co.,Va. In his letter, dated Sept. 8, 1955 Mr. Gilbert W. Withers (owner of Genuine Gems) writes:

"Thanks a lot for your very nice letter which has just come to my attention as I have been up in Virginia getting a real quantity of the choice Rose River unakite. There is only one place that I know of and I know a dozen where really fine unakite is found and this is the source of the wonderful polished pieces in the Smithsonian and American Museum of Natural History. This material tumbles off the high cliffs of the Blue Ridge near Big Meadow on the Skyline Drive and finally winds up in the falls and rapids of the Rose River, a branch of the Rapidan. Believe me if it lasts long enough to get to the property where I purchased it from the owners, it *has* to be good!"

WASHINGTON — Lead-gray masses of molybdenite, sometimes containing small white veins of calcite, have been found in Ferry County at Meadow Creek, near Keller, Wash.

WEST VIRGINIA—G. Vincent Scofield, 1112 Highland Road, Edgewood, Charleston 2, W. Va., has sent in a clipping taken from the *Charleston Daily Mail,* issue of Thurs. Aug. 11, 1955. The clipping is an item by Bob Jarrell and refers to finding of petrified wood in Fayette County, W. Va. It reads as follows:

"Employees of the Cannelton Coal and Coke Co. unearthed a rare find in petrified wood early this month on a steep mountain above Custer Hollow, at the headwaters of West Hollow, in Fayette County.

Kenneth Robins, division engineer for the firm, said the 1,000 pound stump was the only one ever found in the area since the Cannelton company first began mining operations back in 1880. A large part of the tree was removed intact and weights an estimated 500 pounds.

"Officials at the Mariner's Museum in Newport News, Va., trustees of the 14,500 acres now under exploitation by the coal mining firm, have indicated they are interested in acquiring the unusual find for display. Since the stump was unearthed Aug. 2, company officials have kept the crystallized structure stored in a garage, safe from prying hands of souvenir hunters.

"Robins first spotted the petrified tree together with Paul Morton, assistant general manager, back in September, 1953, but the men were unable to remove it until recently, when a new road was cut across the mountain directly above the find. The encased tree was dug free from the sandstone ledge by four men, working more than half the day. Fourteen feet of the stump were unearthed and workers used an army winch truck to haul it to the garage. The men let out more than300 feet of cable, 200 feet of chain and wire ropes down the hillside in an effort to remove the tree. The brittle substance cracked and broke away but they managed to recover the largest piece intact.

"It's there — in the company garage — today, one of the most unusual petrified discoveries of the state's history."

WISCONSIN—I am mailing you a specimen chipped from a larger rock since I do not know what it is. This piece was brought to me by a farmer who had chipped it from an odd looking rock weighing about 50 pounds, which he had found in his field years ago. He thinks it is a meteorite since when he found it it had a black smoke-like appearance on the outside. The location is in the S.W. corner of Shawano County, Wisc." Letter dated Oct. 21, 1955, from the Rev. Harold Krenz, Tigerton, Wisc.

The specimen is a fine grained brownish sandstone with a number of cavities lined with drusy rock xls.

WYOMING—Nice reddish masses of chalcedony have been found in Worland, Washakie Co., Wyo.

ALASKA—Frank H. Waskey, Oakville, Wash., reports that he has seen some very good colored petrified wood from the Kenai Peninsula, Alaska, and plans to obtain a good quantity. Mr. Waskey formerly resided in Alaska.

ANDORRA—From Andorra, one of the world's smallest republics, situated between Spain and France, we have some rock specimens that were collected for us by Juan Montal, Plaza Sagrado Corazon 1, Villafranca del Panedes, Spain. Two of the specimens come from Ransol, in the northern part of the country; one is a grayish, banded gneiss — the other a whitish mica schist.

BRAZIL—Genuine Gems, Box 1531-B, Atlanta, Ga., have sent us 4 rock xls (Brazilian quartz) selected at random from their large stock which was advertised in the Sept.-Oct. 1955 R&M, p. 518. These specimens were originally purchased at high price for electronic use but were found to be unsuited and are being resold at a reduced rate to cutters, as the material is perfect for faceted stones and small spheres. A letter, dated Sept. 8, 1955, from the company has this paragraph:

"We are offering the material at what we believe to be the cheapest price that fine quality Brazilian quartz has ever been offered. Starting at one lb. for $1.00 up to 10 lbs. for $7.50 or 75c per lb. We can't buy it that cheap by the *ton*. The answer of course is that this material is too largely optically or electrically twinned for electronic use. This really is an opportunity for the boys to stock up."

CANADA—"I am sending you today two specimens of conglomerate-uranium ore that could be used for book ends. These were samples from the Pronto uranium mine in the Blind River area, 12 miles from the town of Blind River, Ont., Canada. The ore from Consolidated Dennison and Algom uranium mines look just like these specimens. I wanted to test these specimens so as to be sure they had uranium in them as some specimens don't have it, while others have a great deal.

"I went up to Sudbury, Ont., to visit the International Nickel Mines and stopped off at Copper Cliff and went thru the smelter and refinery for the nickel. Here they gave me some specimens of ore found in that area—chalcopyrite, pentlandite, and pyrrhotite."—letter dated Oct. 10, 1955, from Miss Juliette Desport, 1229-17th Ave., So., Nashville, Tenn.

The specimens were dark gray quartz conglomerate full of tiny, brassy—yellow pyrite, Unfortunately they contained no uranium.

"Time to renew my subscription again, and send along my best regards. R & M is the best mineral magazine on the market.

"Some day I hope you will have a jewelry department in R & M.

"Was up to Bancroft. Ont., Canada, last month. No more collecting at the sodalite quarry. They have a large NO TRESPASSING sign on the property."—letter dated Nov. 21, 1955, from Albert A. King, 5 Avon St., Saugus, Mass.

COLOMBIA—We are very sure that many of our readers remember A. Allen Graffham who formerly was in charge

of our Fossil Department. His new address is: California Ecuador Petroleum Company, P. O. Box 1256, Quito, Ecuador. Here is part of his letter, dated Nov. 14, 1955:

"In June we were in Bogota, Colombia, for ten days. I tried successfully to buy a few emerald in matrix specimens. Got one real beauty with a number of accessory minerals. The local dealers have a bad habit there of glueing a few light colored crystals into poor specimens to get a better price for them. One has to be very careful therefore, in purchasing specimens.

"I was told in Bogota that the mine at Muzo (Colombia) has not produced a single gem quality emerald in the past year of operation. It is operated as a government monopoly. I do not think other mines are working at present so there may be a price increase in emeralds in the near future if Muzo continues to be fruitless. Incidentally some really good emeralds can be purchased at a fair price in Bogota. On the whole they are poorly cut however, and I believe anyone purchasing a stone there should do so with the idea in mind of having it recut in the states. Gem quality crystals are not to be had at any price as the new regulations on emeralds do not permit their sale.

"I will be back in Bogota again in January for ten days, and intend once again to search for good matrix specimens in the shops there.

"While in Bogota we did take one trip of mineralogical interest to the salt mines at Zipacural. Here we collected a few nice pyrite crystals and also very unusual pyrite pseudomorphs after halite. Many of these still had a halite center. Unfortunately the best of these were lost in the mail when shipped to the states to a friend there.

"I enjoy ROCKS AND MINERALS more than ever now and read it from cover to cover when it arrives."

ECUADOR—Mr. Graffham's letter of Nov. 14, 1955, continues as follows:

"So far we like Ecuador very much although we haven't found much in the way of minerals or fossils to date. However, we will be in a mineralized region for a week or so in December and hope to find somthing then.

"Have been on several trips into the jungle country in the province of Esmeraldas where we visited the primitive Cayapa Indians on the Rio Cayapas and Rio Onzole. My wife went along on one trip and made quite a hit with the Cayapas since they had not seen a blue eyed blond haired woman before. Beverly went along on one trip into the Rio Pambil which is a dangerous stream full of rapids and waterfalls. We had no difficulty however, as high water helped us over the bad spots. If local reports are true no white woman had ever entered this region before.

"On the jungle trips we took several rolls of color pictures and collected a few nice fossils of Upper Oligocene age from outcrops on the Rio Cayapas. We also made a raid on the local butterfly population (a new hobby) and came back with some 600 tropical beauties."

ENGLAND—Our good friend in Scotland, Sandy Ramsay, 1015 Aikenhead Rd., Kings Park, Glasgow S4, Scotland, has again come to our assistnce with an item for this issue. He has sent us what we consider to be a very good molybdenite specimen—lead-gray masses in reddish granite which contains considerable xline, brassy-yellow pyrite. The locality is Shap, Westmoreland, England.

"This specimen was collected by Archie Forrest on an outing by the Geological Society of Glasgow. Very few specimens were found but this was the best, poor as it is."—on label.

You are very modest, Sandy, giving a low rating to your fine specimen!

GERMANY—The following letter, dated Oct. 17, 1955. comes from Erich Lindemann, Helen Lange Str. 9, Hamburg, Germany.

"Through the kindness of Mr. Cal O. Getting, Toledo, Ohio, I receive R & M since about 2 years and I am happy to say I have come into contact with a num-

ber of collectors in your country, with whom I exchange specimens of minerals to our mutual satisfaction. Your magazine is always very interesting and has given pleasant upheaval to my collecting generally.

"In the department, 'World News on Mineral Occurrences,' I read articles of my collector-friends, Arnold (of Hamburg) and Lieber (of Karlsruhe) and I think I might as well send you a specimen. It is a basalt—lava with xls of sanidine and a great many hauynite xls.

"You will also notice some tiny xls of golden-brown apatite. I hope you will like it. It comes from the volcanic Eifel district, west of the Rhine, Germany.

"I hope to find still more friends to exchange minerals with. As to my person, I tell you that I am a book-revisor, 71, still going strong. I have collected minerals since my early days in the Harz Mountains, Germany. My collection contains some 3000 specimens. I collect only crystallized minerals."

The specimen received is a very nice one, 3x4 inches in size—a dark gray basalt full of small, gray, glassy sanidine xls with many golden-yellow slender apatite xls, and small, blue hauynite xls. The locality, Eifel, is a bleak mountainous district about 45 miles long and 25 miles wide.

NETHERLANDS NEW GUINEA—"The specimens sent you is from Netherlands New Guinea. My husband is a civil engineer and although he has very little interest in minerals he always brings home any odd specimens that come into his office. They are interested in the size of the specimens (to determine the crusher size, etc., and never the chemical composition. The specimen is a manganese ore and I have assumed it to be psilomelane but would like your confirmation."—letter dated Oct. 28, 1955, from Mrs. Olive M. Delaney, 37 Cliff St., Yonkers, N. Y.

"The specimen is a psilomelane, a black, partly botryoidal mass, coated by deep black earthy pyrolusite.

PERSIA—From the world-famous turquoise mines around Nishapur, Persia, we have a sky-blue nugget of turquoise (a dandy specimen) that was donated by Edgar C. Stinger, Black River Quarry Inc., 6808 So. 140th St., Seattle 88, Wash.

RUSSIA—We have received from Hugh A. Ford, 110 Wall St., New York 5, N. Y., a historic specimen. It is native copper, xled on white xline limestone, 3x5 inches in size, whose locality is Banque Mines, Ekaterinburg, Perm., Ural Mts., Russia.

The historic part is that the specimen comes from the 1809 collection of Henry Heuland of London, England. Mr. Heuland was a famous English mineralogist after whom heulandite (one of the zeolites) was named.

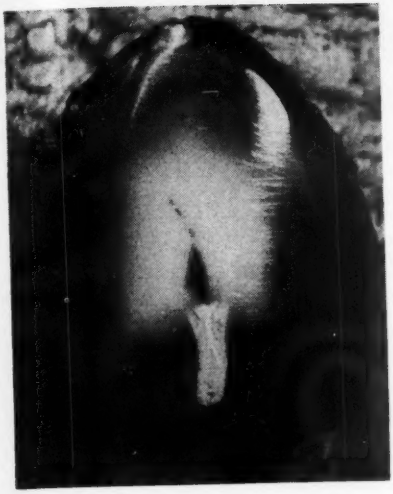
Small whitish calcite xls and tiny lustrous brassy-yellow pyrite xls coat part of the above limestone.

SCOTLAND—Our faithful friend in Scotland, Sandy Ramsay, 1015 Aikenhead Road, Kings Park, Glasgow S4, Scotland, has another item for us. We can always depend on him for assistance. Here is his letter, dated Oct. 28, 1955:

"In my last letter I wrote you about the small agate I have showing a burning candle, and that I would try to get it photographed—well here it is! My next door neighbor, Paul Cassidy, saw some of my agates and thought he would like to try photographing them; now he knows how difficult this is. The picture of the candle agate is not very good but gives a good idea of what it is like.

"Some time ago, when I was waiting for supplies from the States, I cut a few agates and partially polished them; this agate was amongst them. It came from Usan, Forfarshire, Scotland.

"About a couple of months later I had to pay a visit to some friends and filled my pocket with agates so I could show them some of the pebbles I was polishing. One of my friends turned to me and said, "That's a bonnie wee candle in this stone." This was the first intimation I had that I possessed a 'braggin' agate."



Burning candle agate from Usan, Scotland.
Candle — white
Flame — dark red; 3 red spots above flame.
Area surrounding the candle is white at bottom to pink at top.
Agate background — light blue.
Length of candle about 1 inch.

This burning candle agate was described in the last issue of R & M, p. 593.

SOUTH AFRICA—John S. Albanese, P. O. Box 221, Union, N. J., has donated a specimen of the curious green to white massive grossularite, and it has thin veins of black chromite.

"Garnet, var. grossularite, with chromite. Buffelsfontein, Wolhuter's Kop, Rustenburg Dist., Transvaal, South Africa."—on label.

SPAIN—From Minglanilla, Cuenca Province, Spain, we have small, deep red quartz xls embedded in reddish cellular gypsum (some gypsum is tiny colorless selenite xls). These xls were sent us by Juan Montal, Plaza Sagrado Corazon 1, Villafranca del Panades, Spain.

VENEZUELA — In the Sept.-Oct. 1955, R & M, p. 499, John R. Adams, % Mene Grande Oil Co., Barcelona, Venezuela, told us about Venezuela's famous 'Mountain of Iron' at Cerro Bolivar. In his last letter, dated Aug. 29, 1955, he tells us about a deposit of quartz xls located south of the iron mine. Here is his letter:

"Since I last wrote to you, I made another trip to the interior and *recovered* some quartz crystals from the location I previously mentioned to you; however, I was not to the lode and recovered no groups. This is the wet season down here, it was not possible to ford all rivers and pass beyond certain points, so I had to be satisfied with the location that I was able to reach.

"The quartz crystals were spread out over a very wide area in an alluvial deposit just 2 or 3 inches under the surface and from the appearance and condition of the crystals, they have traveled only a very short distance. The range of mountains just two or three miles to the north of the deposit is probably the source area, and I intend to look into that during the next dry season.

"The crystals are very interesting. There are some that are rose colored, some have specular hematite spangle inclusions, some have what looks like magnetite crystal inclusions and some have a very nice emerald green misty inclusion. Many will facet into what I think will be unique stones. In addition, I brought back some quartz that is about half way between rose and amethyst color. This will make nice cabochon material but none that I've looked at so far has any faceting areas in it. I've much to break up yet though before I'll know definitely.

"The area is betwen 50 and 100 kilometers south of the iron mine at Cerro Bolivar on the south side of the mountains and the traveling distance depends on the route chosen to get to the location. At present, all of the routes are hazardous and even during the dry season they are none too good, but I think the effort is rewarded.

"I hope to have more information for you from time to time."

Where can I get it?

Where can I buy pieces of soapstone suitable for soft carvings? Or other soft minerals that could be worked fairly easy.

Carl Sharrard,
Dec. 23, 1955. Rt. 4, Ann Arbor, Mich.

IT CAN HAPPEN TO YOU!

Curious—Just curious!

In this issue, under World News on Mineral Occurrences, Richard Tripp tells us about finding a huge deposit of fluorescent aragonite at an old abandoned limestone quarry near Legrand, Iowa. The following letter, dated Nov. 7. 1955, tells us how he happened to discover the deposit:

"This is in response to your letter to me asking how I stumbled upon such a large find of aragonite. I am an undergraduate geologist working at the present time for the state of Iowa. My job consists mainly of locating and describing new and old gravel, sand and limestone deposits. It was on such an excursion that I came upon this old limestone quarry. The quarry hasn't been worked for over 30 years. In obtaining a few samples of limestone for determination, I noticed a large joint running from the top to the bottom of the quarry floor. It was filled with sand, clay and rock debris, obviously derived from the surface of the quarry. I was genuinely intrigued with how the sand and clay were deposited. I began to dig into this joint-fill mixture when my pick struck and broke off a small piece of rock. Closer examination proved it to be pure aragonite. I continued digging and more aragonite was revealed. Actually, as you can see, anyone looking over the quarry before me could have found this deposit provided they had been curious enough to dig into this clay material. The occurrence of this material, I would say, is rather unusual and there would be no particular reason for finding it other than just pure luck. Believe me, this has taught me to be even more curious than before. From now on, I am going to be looking even in the most impossible places for minerals.

"That figure of 1000 lbs. is now no longer correct. I have, since my letter to you, taken out more of the choicer material and the total aggegate is about 2000 lbs. There is very little left in the joint but I will take it out if there is a demand for it.

"You may be interested to know how I mined out the largest chunk (400 lbs.). After digging out the loose debris from around it, I discovered, to my dismay, that it was attached to a much larger piece at the back.

"After a half day's chiselling, I managed to break it off but it was still too heavy to move out. I hitched 3 ropes to it and the bumper of my '49 Ford and managed to pull it out on to the quarry floor after much ear-piercing squealling from my slipping clutch. Now, my problem was to lift it into the trunk of the car. I borrowed 4 car jacks and made a box frame to support the aragonite. I jacked up the large mass to the fullest height of the jacks. I then backed up the car and tipped the specimen over into the trunk. The whole process took 2 days. I sure hope it was worth it!!!"

Moral: A mineral collector should always be curious if he wants to make a good find!

Richard Tripp
2811 West St.
Ames, Iowa

Bear Hunt Pays Dividends!

John L. Vance, Box 356, Mars Hill, N. C., has found a deposit of some of the finest gem quality kyanite we ever saw from this country. The find was made in the Great Smoky Mts. of North Carolina. Here is his letter, dated Nov. 3, 1955, which enlightens us on how the find was made:

"I am naturally very pleased that you agree on the quality of the kyanite which I have uncovered. The specimens which I sent were representative of average quality of the specimens which I have accumulated. I have specimens of a much finer quality in all sizes, including many large (8 x 8 to 12 x 12) museum pieces, if you know of anyone who is interested.

"I would be glad to give you a few details of my find; all of the details in fact, except the exact location of the deposit, as the supply there is dwindling rapidly.

"There are supposed to be 2 lost locations here in the Great Smokies, probably (from rumors) within 20 miles of each other. Collectors have searched for them for years, knowing that these two deposits have produced the finest kyanite obtainable, in that wide variety of colors, which I sent you.

"At any rate, my father enjoys the sport of bear hunting, and while on a hunt one day, high in the mountains, stumbled upon one of these deposits. He stuck a few samples in his pocket, knowing I collected minerals, and brought them to me. You imagine my excitement when I perceived the quality of the crystals, many of them very good and gemmy enough to produce fine cabochons. I hope this letter will furnish you with the material you requested for your column. Thank you."

Moral: Make friends with hunters and encourage them to bring you samples of odd or beautiful "rocks" they may stumble upon. In this way, you in turn may stumble upon a rare or beautiful mineral.

Collector's behavior reciprocated by quarry operators

In the last issue of R & M, under World News on Mineral Occurrences, p. 590, beautiful barites were mentioned as having been found by Clarence C. Willits (1107 Young St., Piqua, Ohio), at the Pugh limestone quarry, near Custar, Ohio. We were curious to know how he happened to find them (and quite a number, too). Here is his reply, dated Sept. 8, 1955:

"The barite find that I made was one in a thousand as I had never found the first piece in three years of collecting there. Then I hit the jack pot with nearly a hundred nice barite specimens all out of one big vug. The colors varied from light cream to various shades of blue. Some of it was of the rose bud variety and a very few were cubes on dolomite. Several of these specimens were exhibited at the Mid-West Federation Convention at Detroit. I have one large piece of pure barite in the shape of a roll which weighs more than 20 pounds. The calcite formations from here are also very interesting coming in many forms, crystals, singly and doubly terminated and in masses.

"I attributed my good hunting at the quarry to the fact that the management have been very kind to me in notifying me when they were going to shoot a mineralized area."

Moral:Make friends with the management of a quarry—at all times respect faithfully their instructions—and you, too, may have the thrill of being the first to collect (all by yourself) at a newly opened large vug!

Plea for printed list of R&MA members

Editor R&M:

I wonder if it would be possible to compile a list of members of the Rocks and Minerals Association? This is done by all of the technical societies to which I belong such as the Geological Society of America, American Association of Petroleum Geologists, and others. There might even be some information included under each name such as:

1 - Type of collection.
2 - Number of years collecting.
3 - Whether interested in trading
4 - Whether the collector would like other collectors to call on him when in the vicinity.

I am sure there are a number of collectors who would like to have such a list. I would personally be glad to meet collectors passing thru Tulsa.

Albert Laws Kidwell
Carter Oil Co., Research Lab.
Tulsa, Okla.

Oct. 29, 1955

Editor's note: A list could be issued but a charge would have to be levied, perhaps $1 per copy. How many members would be interested?

WOMEN'S CORNER OF R&M

Conducted by Winnie Bourne
c/o Rocks and Minerals
Box 29, Peekskill, N. Y.

With this issue we are starting a new feature—a page for women collectors. It is a delightful pleasure to do this for the fair sex, because of their keen interest in minerals and in mineral collecting. And of course, R & M, being America's oldest mineral magazine, and a leader in its field, should be the first to recognize the great contribution to mineralogy that women are making and give them due credit. R & M is also deeply indebted to women because so many of them are not only subscribers but have made many donations of articles, notes, minerals, sands and other items.

We have had this department in the back of our mind for quite some time, however it was brought out in the open by Winnie Bourne's suggestion that women should have a column all their own. When we told her it would be an advantage to have someone locally to edit this column, she quickly volunteered her services to do so much to our delight at her genuine interest. —— Winnie Bourne is the most avid collector in our local area and she has an intense desire to further increase women's interest and participation in the field of Mineralogy. We feel that this department edited by Winnie Bourne will greatly promote women's activities in Mineralogy.—The Editor.

How I became interested in minerals

My interest in minerals started with my young daughter, Barbara, who at a very early age began picking up pretty pebbles and bringing them to me, asking if they were any good. In order to answer her questions I had to learn the answers and in doing this I soon became fascinated with minerals, with the result that I now have charge of the Women's Corner of R & M.

My daughter would run to me with the pebbles—many were beautiful—green, white, red, pinkish, black, dark gray—and I wondered what they could be. Were they rare or common or unusual and what were their names? I had to enlist the aid of the Editor of R & M and he was very kind, sympathetic and most helpful. First he told how pebbles originated. Many thousands of years ago all of Canada and all of northern U. S. was covered by immense glaciers which extend from coast to coast. As these glaciers moved downward (southward) they plowed off tops of mountains and thus carried with them enormous amounts of broken rock which were often of large size but through abrasion, became smaller and smaller as the glaciers advanced. Ancient streams picked up these broken rocks (now much reduced in size), rolled them along, rounded off their corners, often gave them a nice smooth polish, and further reduced them in size.

When pebbles are found away from modern streams, it indicates that the ancient stream beds had disappeared—if found along banks of present streams, it may indicate that the present streams are of great age (may be ancient streams still in existence).

Pebbles may have travelled hundreds of miles—those around Peekskill, N. Y., may have originated in the Adirondack Mts., (in northern New York), or even in Canada. As to the pebbles themselves, they were not rare but very common. The greens were epidote, reds were feldspars, whites were milky quartz, blacks were hornblendes, speckled ones were granites, etc.

My case parallels those of many women with whom I have talked. I would be delighted to hear how some of our women readers became interested in minerals, if their interests started differently from mine.

Women's Corner Fund

In order to keep this corner opened exclusively for the women as a permanent feature in R & M, I have agreed to give it my entire attention and support. If any readers would like to make a contribution towards stationery, stamps, and other ex-

(Continued on page 41)

THE SAND COLLECTOR

CONDUCTED BY PETER ZODAC
PEEKSKILL, N.Y.

Pegmatite sand from Twin Buttes, Ariz.

Our first pegmatite sand from Arizona was sent us by Geo. Barclay, Box 433, Newport News, Va. It is a coarse, brown sand consisting of smoky quartz, whitish feldspar, black biotite and black magnetite.

"Pegmatite sand from dry wash 6 miles west of Twin Buttes, Pima Co., Ariz." on label.

Gypsum sand from Devils Den St. Park, Ark.

Devils Den State Park is in Washington Co., Ark. From the Park we have a gypsum sand that was collected for us by Mrs. John McCarty, 5824 E. 12th Street, Kansas City 26, Mo.

The sand is gray in color and fine grained. It is all gray gypsum. It is the first gypsum sand we ever saw or heard of from Arkansas.

Beach sand from Bootlegger's Beach, Cal.

From Bootlegger's Beach at Smuggler's Cove (on the Pacific Ocean) we have a sand sample that was collected for us by Gordon ViGario, 2231 Pine St., Bakersfield, Calif. The sample is a brownish-gray, medium grained sand. It consists chiefly of quartz (brown chalcedony, also gray; clear quartz, also smoky) with some white (also brown) sea shells, and a little black magnetite.

"Please accept this small sample of sand from Bootlegger's Beach, Smuggler's Cove, Santa Cruz Co., Calif. This location is about 20 miles north of the city of Santa Cruz on Highway 1.

"This material comes from a location with very colorful history. You see, during prohibition, bootleggers used this beach to bring illegal whiskey into the country. The contraband was no doubt made in Mexico and then brought into this State via this beach.

"Bootlegger's Beach is just the type of location you might think that it is. It's located on a cove with high protecting ledges. The whole area itself is on a very lonely spot of the coast (on the Pacific Ocean). It is just the place that you would see depicted in some Hollywood thriller.

"As a matter of fact this beach is not accessible to the public because it is on private property. I was with a party that had special permission to enter the area.

"Since this beach is not open to collectors, I found some very good specimens of moonstone, agate, jade. The largest piece of jade was a ¼-lb chunk of low quality material. However, most of the moonstone and agate was of cutting quality, though small."

Letter from Mr. ViGario, dated Sept. 27, 1955.

Garnet sand from Sherwood Is. St. Park, Conn

From the beach in Sherwood Island State Park, Fairfield Co., Conn.,we have a sample that was collected for us by Joseph Rodgers, 1739 Lincoln Terrace, Peekskill, N. Y.

The sample is a dark red, medium grained sand. It consists chiefly of garnet (pink to dark red) with small amounts of colorless to smoky quartz, whitish feldspar, black hornblende, greenish epidote, black magnetite.

"Sherwood Island State Park, Conn. Situated on Long Island Sound (just south of Greens Farm). Sample of garnet sand found on the beach after the Hurri-

cane Diana. Collected Sept. 1955." — on label.

Beach sand from Alligator Point, Fla.

From the beach at Alligator Point, Franklin Co., Fla., was have a sand sample that was sent us by Glen E. Kiser, Douglass, Kans. It is a fine grained, white sand (looks like granulated sugar). It consists entirely of colorless quartz). It

"Alligator Point, N/W coast of Florida at Alligator Bay off Apalachee Bay." — on label.

Creek sand from Atlanta, Ga.

Atlanta in Fulton Co., Ga., is not only the capital but also the largest city of the state. From the city we have a sand sample that was sent us by Hobson Arnold, Sr., 783 Essie Avenue, S. E., Atlanta, Ga.

The sample is a fine grained, black sand. It consists chiefly of black, lustrous ilmenite and colorless quartz, with minor amounts of black, lustrous magnetite, pinkish garnet, some silvery muscovite, green epidote and pale brownish zircon that fl. orange under the Mineralight.

"From Entrenchment Creek, Atlanta, Ga.' — on label.

Quartz sand from Hamburg, Ind.

We just ran across a sand sample that was sent us several years ago by Roy Grossman, 211 N. Park Avenue, Batesville, Ind. It is a brownish, medium grained sand consisting chiefly of brownish, translucent quartz, with some smoky quartz and black magnetite.

"From an eroded area near Hamburg, Franklin Co., Ind.' — on label.

Beach Sand from Marquette, Michigan

Mrs. Fred H. Sensiba, Municipal Airport, Escanaba, Mich., sent in this sample. It is a fine grained, brown sand consisting chiefly of quartz (colorless, smoky, brownish, reddish) and brownish feldspar. A tiny amount of lustrous black magnetite also present.

"From beach on Lake Superior at Marquette (Marquette Co.), Mich., near Presque Island." — on label.

Quartz Sand from Rochester, Minn.

We are indebted for this sample to Mrs. Ed. P. Olson, Beresford, S. D. It is a fine grained, orange-colored sand and consists entirely of orange-colored quartz.

"Sand from bank along road, Rochester (Olmsted Co.), Minn."—on label.

Geode sand from Wentzville, Mo.

Geode Industries, 106 W. Main Street, New London, Iowa, sent in this sample. It is a medium grained brown sand consisting entirely of brown quartz.

"Sand is from a geode, Wentzville, St. Charles Co., Mo. (about 20 miles west of St. Louis). Found by Harvey Morrow while working for the C. L. Jennings Well Drilling Co. in Wentzville. We think this is quite an old sand as the geode came from the 3rd layer, Warsaw shale (possibly about 150 million years old)— on label.

Lake sand from Crystal Lake, N. H.

Crystal Lake is in the extreme southern part of Grafton County, N. H., and we have a sand sample from there that was collected by Mr. & Mrs. John Chisdock, 516 Stark Street, Moosic 7, Penn. The sample is a medium grained, gray sand and consists of smoky quartz, pink feldspar, silvery muscovite, and black biotite.

Building sand from Mahwah, N. J.

Along the west edge of N. J. Hiway 507, in Mahwah, Bergen Co., N. J., is a huge sand pit (Sam Braen & Co. Sand & Gravel Plant). From the pit the conductor of this department collected a sand sample — a coarse, dark gray sand.

The sand consists chiefly of quartz (smoky, brownish, reddish, colorless), with feldspar (white reddish, flesh colored), black hornblende, black slate and gray granite with minor amounts of black lustrous magnetite and lesser amounts of blackish muscovite, brown limonite, and bronzy phlogopite.

Creek sand from Clayton, N. Mex.

Glen E. Kiser, Douglass, Kans., donated this sample which comes from Cariesse Creek in Clayton, Union County, New Mexico. The sample is a fine grained, brownish sand consisting chiefly of brownish and smoky quartz with some pinkish feldspar and a tiny amount of black magnetite.

Garnet sand from Tiana Beach, N. Y.

Tiana Beach, on the Atlantic Ocean, is in Suffolk Co., near Southampton, L. I., N.Y. From the beach we have a sand sample that was collected by Mrs. Olive M. Delaney, 37 Cliff St., Yonkers, N. Y.

The sample is a fine grained, dark reddish sand. It consists chiefly of garnet (pink to dark red), with black lustrous magnetite, black lustrous ilmenite, colorless quartz, green epidote, and colorless zircon that fl. orange under the Mineral-light.

"The enclosed is garnet and magnetite sand from Tiana Beach near Southampton, and is composed mainly of quartz sand with garnet. There is one patch of this dark sand and after every hurricane the patch gets darker and bigger! For the life of me I can't think where the extra magnetite comes from, as there are quartz sand dunes for miles around."— letter dated Oct. 28, 1955, from Mrs. Delaney.

Garnet sand from Andrews, N. C.

Andrews, in Macon Co., N. C., is on the Nantahala River. From the river we have a sand sample that was sent us by J. R. Lee, Bridgeport, Ala. The sample is a reddish, medium grained sand consisting chiefly of pink to red gemmy garnet with quartz (colorless brownish) and black magnetite.

"The garnet (river) sand was sent me by my sister from Andrews, N. C., where she painted one summer some years ago; since she was not a collector of minerals, the sand in all probability, was obtained in the vicinity of Andrews.' — on label.

Beach sand from Middle Bass Island, Ohio

In Lake Erie is a group of three islands known as North Bass, Middle Bass, and South Bass. From the one in the middle, Middle Bass Island we have a sand sample that was sent us by Clarence C. Willits, 1107 Young St., Piqua, Ohio.

The sample is a medium grained, reddish-gray sand. It consists chiefly of garnet (pink to red, gemmy) and quartz (colorless, reddish carnelian) with some lustrous black magnetite, colorless zircon that fl. orange, and gray limestone. Some white to gray sea shells also present.

"I am sending you this sample of beach sand from Middle Bass Island, one mile north of Put-in-Bay (on Bass Island) in Lake Erie." — letter dated July 18, 1955, from Mr. Willits.

The island belongs to Ottawa County, Ohio.

Creek sand from Atoka Co., Okla.

This fine grained, brownish sand was sent to us by Glen E. Kiser, Douglass, Kansas. It consists chiefly of quartz (brownish, smoky, colorless) with some pale pinkish feldspar.

"From Sand Creek, Hwy 3-1 mile east of Atoka, Atoka Co., Okla."— on label.

River sand from Lostrine, Ore.

A coarse gray sand consisting chiefly of quartz (smoky, white) with some black biotite, white feldspar, and some black magnetite. Donated by Athur W. Browne, 623 Palo Alto Avenue, Mountain View, Calif.

"From Wallowa County, Ore. Lostine River drains the Wallowa Mountains and joins the Wallowa River at the town of Lostine. For good reading on the Wallowa Mountains read "Of Men and Mountains" by Justice Douglas. Sand is from the Lostine River half a dozen miles up from Lostine." — on label.

Fox hole sand from Fort Jackson, S. C.

Pvt. William R. Butts, 435 Main St., Moosic 7, Penn., while stationed at Fort Jackson, Richland Co., S. C., sent in the following sand sample:

Medium grained, brown sand consisting chiefly of brownish quartz with some brown clay.

"The sand is from Fort Jackson which is 5 miles east of Columbia in Richland Co., S. C. It was taken from a Fox hole about one foot from the surface. It was not near any stream." — letter dated Nov. 16, 1955, from Pvt. Butts.

Garnet sand from Keystone, S. D.

This is a coarse, dark red sand. It consists chiefly of pink to dark red garnet (some show good xl faces) with quartz (smoky, colorless), a little black magnetite and black tourmaline.

"I collected this sand about 10 years ago from a dry wash in the pegmatite area probably about 3-4 miles northeast of Keystone (Pennington Co.), S. D." — letter dated Dec. 3, 1955, from Chas. Preheim, Freeman, S. D.

River sand from Johnsonville, Tenn.

Johnsonville, in Humphreys Co., Tenn., is on the east bank of the Tennessee River. From the river here we have a sand sample that was sent us by Miss Juliette Desport, 1229-17th Avenue, So., Nashville, Tenn.

The sample is a coarse, brown sand. It consists chiefly of quartz (smoky, brownish, colorless, gray chert, brown jasper) with tiny amounts of black magnetite and silvery muscovite.

"I just got this sand from the Tennessee River in Johnsonville. Tenn., day before yesterday." — letter dated Aug. 17, 1955, from Miss Desport.

Celestite sand from Blanket, Texas

Mrs. Ruby Renfro, 2901 Bomar Ave., Fort Worth 3, Texas, sent in this interesting sand, which we believe is our first celestite sand. It is a coarse, gray sand consisting of gray limestone and colorless celestite (many grains show xl faces).

"South of Blanket, Brown Co., Texas Celesite sand." — on label.

Coral sand from Watling's Island, Bahamas

Watling's Island, one of the Bahamas, in the West Indies, was formerly known as San Salvador Island and is famous as being the first land in the New World on which Columbus landed Oct. 12, 1492. The Bahamas consist of a chain of coral island so it is not surprising that much of its sand is coral.

From a beach on Watling's Island we have a sand sample that was collected for us by M. L. Peterson, 933 N. Longfellow Street, Arlington, Va. It is a cream colored, medium grained sand and consists chiefly of cream colored coral with some white sea shells. The sand was collected on July 2, 1955, from a beach on the western coast of the island.

Lake sand from Victoria Lake, Que., Canada

This sample comes from the Rev. William Caldwell, 454 Wyoming Ave., Wyoming, Penn., who collected it from Victoria Lake, Gracefield, Que., Canada, while on a recent fishing trip taken by this pastor with some of his parishioners.

It is a dark gray, coarse sand consisting of smoky quartz, and feldspar (colorless, pinkish) with minor amounts of black magnetite, black biotite, and silvery muscovite.

Ilmenite sand from Colombo, Ceylon

Fritz G. H. Carlson, 55 Foster St., New Bedford, Mass., has sent in a sand sample which comes from a beach at Colombo, Ceylon (Ceylon is an island in the Indian Ocean).

The sample is a lustrous black, fine grained sand consisting chiefly of lustrous black ilmenite with minor amounts of lustrous black magnetite, red garnet, and colorlesss quartz.

Ilmenite sand from Playas, Ecuador

"I am sending you a sample of ilmenite sand that you might find interesting. It was collected from the beach at Playas, Ecuador (on the Pacific Ocean). The rivers that head in the Andes carry quantities of ilmenite and other minerals as microscopic euhedral crystals. These are dumped into the ocean and bays and then reworked by the waves into fairly pure deposits along the beaches. In places hundreds of tons of such concentrates can be seen on one stretch of beach. This type of black sand is fairly common on all of the beaches of Ecuador. I am sure you will note a number of other heavy minerals in this sample which I have not attempted to identify." — letter dated Nov. 14, 1955, from Allen Graffham, California Ecuador Petroleum Co., P. O. Box 1256, Quito, Ecuador.

The sample is a fine grained, black sand. It consists chiefly of lustrous ilmenite with minor amounts of black lustrous magnetite, and smaller amounts of green epidote and colorless quartz.

Jasper sand from Whangaroa Heads, New Zealand

This sample comes from Whangaroa Heads, Tauranga Bay, East Coast, North Island, New Zealand, and was collected by Miss Winifred H. Arnold, 2020 Mag-

nolia Ave., Long Beach 6, Calif. It is a fine grained, brown sand consisting chiefly of brown lustrous jasper (also brownish and colorless quartz) with black hornblende, and black magnetite

"We stayed at the Northland Fishing Lodge at the entrance to Tauranga Bay. The small sandy beach by the Lodge was a chocolate-brown when wet. This is an ideal spot for people interested in deep sea fishing. World record fish have been caught just outside the harbor. They had several sharks' jaws drying out in the sun, one was from a shark which weighed almost 1,000 pounds. There is no road leading to this Lodge, we came by launch." — note sent by Miss Arnold with the sand sample.

Beach sand from Aberdour, Scotland

"Beach sand from Aberdour, Fifeshire, Scotland. When Dunfermline was the Royal City of ancient Celtic kings of Scotland, Aberdour was the seaport for Dunfermline. From here sailed the Calamiticus expedition to Norway to bring the 'Maid of Norway' home to Scotland.

"My assistant has just taken a look at the sand and said: 'That's just the ordinary sand not the silver sand.' Evidently I had taken the wrong turning and the 'Silver Sands' are on the other side of the tiny harbour. — tut tut, and me a native Fifer, too." — on label with sand received from Sandy Ramsay, 1015 Aikenhead Road, Kings Park, Glasgow S 4, Scottland.

The sample is a medium grained, gray sand. It consists chiefly of quartz (smoky, colorless) with a little dull black magnetite and some sea shells (white, brown, reddish). Aberdour is on the Firth of Forth.

Beach sand from Port St. Johns, South Africa

Port St. John, Cape Province, South Africa, is on the Indian Ocean at the mouth of Umzimvubu River. From the beach at Port St. Johns we have a sand sample that was collected for us by F. C. M. Bawden, P. O. Box 1167, and Mrs. I. N. Gush, P. O. Box 1128, both of Johannesburg, South Africa.

The sample is a fine grained, brownish sand consisting of sea shells (brown, pink, white) colorless quartz, plus a tiny amount of black magnetite.

Beach sand from Maracas Beach, Trinidad

"My husband and I recently returned from a delightful summer spent in England and Scotland. The high-light of our trip was a three-day visit in Glasgow, Scotland, were Sandy Ramsay, his charming sister, Tibby, and his good rock hound friend, Sandy Gault, showed us the time of our lives.

"They took us on a field trip for prehnite, so successful that our porters subsequently were prone to remark, "What you got in here, rocks? and, of course, not believe us when we replied yes.

"Sandy Ramsay filled a small metal bottle with sand from the shore of Loch Lomond, and asked me to send it to you. On our return trip, I filled a match box with sand from Maracas Beach, Trinidad These are in a small parcel dispatched in the mail with this letter and I hope they will add a note of interest to your collection." — letter dated Oct. 3, 1955, from Mrs. Ronald Sharp, 1555 Escobita Ave., Palo Alto, Calif.

The sand sample from Maracas Beach is a fine grained, brownish sand consisting entirely of quartz (brownish, colorless).

Maracas Beach is on the north coast of Trinidad on Maracas Bay. Trinidad in an island off the North coast of South America.

Visiting Rock Hounds Welcomed

The following subscribers would be delighted to have rock hounds call on them when passing through their cities. If any one else wants his name added to the list, just let us know.

Mrs. John A. Talbot, 1221 W. 6th Ave., Pine Bluff, Ark,

R. A. Richards, Box 44, Morristown, Ariz.

Albert Laws Kidwell, Carter Oil Co., Research Lab., Tulsa, Okla.

THE AMATEUR LAPIDARY

Conducted by Captain George W. Owens
Box 907, OMS, Mather Field, Calif.

Amateur and professional lapidaries are cordially invited to submit contributions and so make this department of interest to all

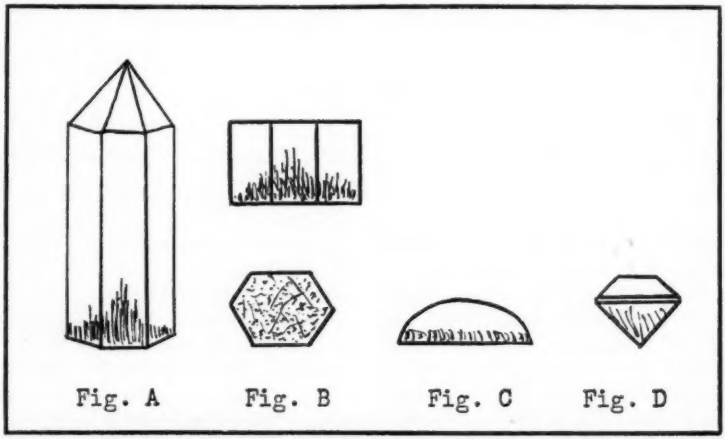
Interesting Cabochons and Faceted Gems from Quartz

Of all the crystalline minerals available to the amateur cutter undoubtedly the most common one is the Quartz Crystal. It is also one of the most interesting from the viewpoint of odd, unusual, and unique stones that may be cut from it. — Now, before I am hung by a mob of extremely irate and uncontrollable xl collectors, let me make it very plain that I do not cut complete (whole & terminated) crystals, but rather, I cut only "brokens". Every crystal collector knows he digs at least a handful of "brokens" for every good crystal.

Dispensing with all the beautiful, but clear, varieties of quartz, let us consider only those that contain inclusions. There is a great variety of inclusions encountered in Quartz xls. Actinolite, chlorite, magnetite, stibnite, garnets, pyrites — the list is almost endless. Practically any of these lend themselves to the cutters treatment. All result in beautiful gems when properly prepared and are among the few stones in the collection that invariably bring forth comment from the viewer.

Several years ago the author was fortunate in obtaining several hundred quartz crystals containing inclusions of both chlorite and actinolite. He has faceted stones of from one to over eighty carats in weight — all of which turned out to be exceptionally nice stones. The best of these crystals come from the vicinity of Quincy, California, and are very clear; however they are not limited to this locality.

In the diagram Figure A represents a typical "Quincy" xl with actinolite inclusions. (For some reason about 99% of these xls have inclusions only at the base of the xls.) A situation that is to our advantage when we "preform" because we want a good thick layer of clear xl over the top of the inclusion "belt or zone. This thick layer will give us a magnified effect in cabochons and clear perfect crown in a faceted gem. Often the in-



Quincy, Calif., rock crystal showing actinolite inclusions.

cluded material is softer than quartz and will leave holes, pits, or other flaws that are unsightly in the finished stone. By having a generous layer of the clear xl we leave room to perfect our cut and have all inclusions below the bezel line in cabochons and the girdle in the faceted stone.

Figure B is a cross view section of the xl, attempting to show that portion of the xl most suitable for cutting — occasionally these xls will have the inclusions towards only one side and thus may be oriented in several directions.

Figure C is a side view of a completed cabochon showing inclusions stopping near the bezel line to avoid any possibility of defects. The area of the cabochon is limited only by size of the xl.

Figure D is a side view of a faceted stone showing inclusions stopping short of the girdle for the same reason as stated above.

In faceting these quartz stones I use angles generally accepted as best for quartz, without regard to the type inclu sion; namely, 40 to 50 degrees for the crown; 43 degrees for the pavilion and the table approximatly 50% of the diameter of the stone at the girdle — in emerald cuts the 50% is figured from the narrow side of the stone, I sometimes facet the pavilion of the gem prior to faceting the crown. This allows me to cut until I have the inclusions "in place" where they will show to best effect — and from experience I can say with reasonable certainty that if the stone is going to "split" or open during cutting it will do so at the time the pavilion is being cut or polished. Also, on the conclusion of cutting the pavilion it can be determined if the inclusions are of such nature that the polishing agent will enter the stone. To help alleviate this possibility waterglass, varnish, or some other commonly available and readily soluble liquid can be used to fill the openings and then removed after the polishing operation has been concluded.

This practice of cutting the pavilion first and filling the openings with a soluble liquid may be frowned on by the orthodox cutter, but I am more interested in results than in a rigid formula of cutting.

In preforming these xls it has been found that by keeping the stone cool as possible that the possibility of further opening of any small flaws may be avoided. The author has never encountered any problem with internal stress in any of these xls — leading him to believe that "stress" is named the culprit for many a flaw that develops during cutting when actually the stone has been "shocked" by hitting it against the lap, etc. during the cutting operation. By preforming as close as possible to the desired finished stone much cutting time may be saved — however remember that this type material should be cut so as to have the inclusion stopping below the girdle or bezel line — a cardboard suitably notched to represent the desired size of the finished stone will be of help at this stage in determining just how much or how deep to preform into the inclusions.

Naturally in both the preforming and the actual cutting, only water should be used as a cooling agent. Any oil base liquid will work its way into the inclusion holes and may result in a complete loss of the stone's beauty.

The stones cut rapidly, being quartz, and polish readily following the usual methods for the cabochon type and take an exceptionally nice polish on lucite using cerium oxide as the polish agent, in the case of faceted gems. The possibility of setting these gems is almost endless — they "show" to good advantage in every type mount and make a really beautiful necklace when set in silver.

Do you have such a stone as this in your collection? Why not try cutting one? Anyone can facet or cut a cabochon from this material — and in every case a beautiful stone may be expected; one that will add beauty to any collection. Your favorite mineral dealer undoubtedly has this type of quartz xl in his stock — and the price should be most reasonable especially if you should ask him for his "damaged" stones —those with broken terminations, etc., he

will no doubt be glad to help you in your selection as broken crystals seldom find favor in the eyes of mineral collectors. — so why not cut one and add a most unusual stone to your collection.

Commander Sinkankas forced to resign as Editor of Amateur Lapidary Column

The time has finally come when demands placed upon me force me to cut myself loose from the regular contribution of articles to the Amateur Lapidary Column. I have just lately taken promotion exams to the rank of Captain, U. S. Navy, and expect to make my number sometime after the return of the year. As I progress in rank and in service, there is more time that I must devote to the job in the way of extra-curricular activities. I am sure that you can appreciate this. As a consequence, some late articles have been written rather hastily and that isn't good. I feel that now is the time to quit and let some one else take over. How long has it been? — about six years I think. A newer viewpoint is probably indicated anyway.

Lest you be alarmed too much however, let me hasten to assure you that I have selected a relief who indicates willingness to carry on — Captain George Owens, USAF. I wrote him the other day and asked whether he would consent and he said yes but not until after Dec. 21st. He is attending a technical school at Mather Air Force Base, California, and I imagine that the press of intensive study prevents him from having much spare time for himself. George is extremely interested in lapidary work and has been an active practitioner for at least 10 years that I know of. In addition he has written various articles for R&M and other magazines. His writing ability is good. I therefore urge you to accept him as my relief, and write him to this effect.

My connection with Rocks And Minerals has been most pleasant. Although I will be officially severed from your staff, I will regard myself a bit more interested in the affairs of the magazine than as a mere subscriber If my opinions or advice is wanted at any time, do not hesitate to write me, I think I am truthful when I say that steady writing for R&M has done more to improve my writing abilities than any other thing that could have happened. The successful completion of my book is a direct result of this experience.

John Sinkankas
640 Alameda Blvd.
Coronado 18, Calif.

Oct. 10 1955

Editor's Note: It was with sincere regret that we had to accept the resignation of Commander Sinkankas as Editor of the Amateur Lapidary Column. His interest, loyalty, and devotion to R&M was tremendous and we are heavily indebted to him. Should he never send in another item, he will never be forgotten. A true friend, a fine gentleman, a great mineralogist, and a famous gemologist — that is Commander John Sinkankas of the U. S. Navy.

As to Captain George Owens of the U. S. Air Force, we welcome him with open arms. A subscriber of R&M for many years and a frequent contributor of articles and minerals, his loyal interest in the magazine is of the highest. We are very sure that the Amateur Lapidary Column will continue in popularity under his guidance.

A good idea — Guide Service

A suggestion sent in by a subscriber that we should list names and addresses of all collectors who would be willing to guide visitors to localities in their area. This is a good idea. Who will be the first to volunteer?

LOOKING BACK TWENTY-FIVE YEARS AGO

in Rocks and Minerals

March 1931

Osmiridium Mining in Tasmania, by P. Ormsby Lennon, pp. 1-6. Mr. Lennon, a world wide traveler and prospector, was the only writer to take in the Osmiridium "rush" from start to finish, as well as being the only newspaper man on the scene.

Beryllium in Maine, by Prof Freeman F. Burr, pp. 8-9. Seven of the known beryllium minerals occur in the pegmatites of Maine.

Geology of the Hutchinson Valley Sanitary Sewer Tunnel, by Thomas W. Fluhr, pp. 10-13. This tunnel, nearly 2 miles long, is in southern Westchester County in southeastern New York.

Are the colors of precious stones due to colloids? by George O. Wild, pp. 14-15. A discussion on what gives precious stones their colors.

OBTAINABLE MINERALS OF LOS ANGELES COUNTY, CALIFORNIA

By Jack Schwartz
656 So. Hendricks Av., Los Angeles, 22, Calif.

Los Angeles County has a lot to offer to the collector in the field of mineralogy. Most of the minerals mentioned were personally collected by the author, a few were shown to him by other collectors.

Actinolite—Masses of pure crystalline material are found scattered throughout the San Gabriel Mts.

Albite—The variety Peristerite, in fine, chatoyant cleavages is found in Pacoima Canyon.

Allanite—Tabular xls of Allanite are found in a pegmatite in Pacoima Canyon. Large xls are to be seen, but they are too fragile to collect intact. However, small xls are readily taken.

Analcime—Clear xls, up to one-half inch in diameter are taken in the basalts surrounding Lake Malibu. Small, perfect xls are found in Brush Canyon, Hollywood. Tiny xls, associated with Natrolite are found in cavities of basalt in Tick Canyon, about one-fourth mile past the old Sterling Borax Mine.

Andalusite—Slender xls of the variety Chiastolite are found in the Cordierite slates of the Hollywood Hills.

Andesine—Some Andesine occurs in Tick Canyon.

Annabergite—This rare mineral is found in Pacoima Canyon, associated with Pyrrhotite and Erythrite.

Apophyllite—Found in basalt in Brush Canyon, Hollywood.

Aragonite—Fluorescent and phosphorescent Aragonite is found in the dumps of the old Sterling Borax Mine in Tick Canyon. Rarely found in the Palos Verdes Hills.

Arsenolite—Several specimens were collected by the author in Pacoima Canyon.

Barite—Beautiful groups of xls, clear, white, tan, amber and blue are common in the Palos Verdes Hills. Microscopic xls to those measuring up to three inches are available. Barite xls coated with drusy xls of either Quartz or Dolomite are sometimes found.

Beidellite—Found in Elizabeth Lake Canyon.

Biotite—Large books of this mineral is common in Pacoima Canyon.

Bornite—Some Bornite is found in Pacoima Canyon, associated with Pyrrhotite and Chalcopyrite.

Calcite—Good xls of Calcite are found in the dumps of the old Sterling Borax Mine in Tick Canyon. Here, good cleavage pieces are found that fluoresce highly. Fine xls of Calcite are found in the Lake Malibu area, along with the variety Iceland Spar, which fills the cavities of Chalcedony nodules. Good xls can be found throughout the Santa Monica Mts. Calcite xls are found in the centers of fossil Turitella in the Woodland Hills. Good specimens of Oolite are taken near Eagle Rock.

Celestite — Small xls are sometimes found at the old Sterling Borax Mine in Tick Canyon.

Chalcanthite—This mineral can be collected in the tunnel of the Ophir Mine in Tick Canyon.

Chalcopyrite—Found in Pacoima Canyon, associated with Pyrrhotite and Bornite.

Chrysocolla—Some Chrysocolla was found in Pacoima Canyon.

Clinozoisite—Fine groups of xls are found in San Francisquito Canyon.

Colemanite—Beautiful xl groups were found in the dumps of the old Sterling Borax Mine in Tick Canyon. Large, cleavable pieces and radiating crystalline groups are also taken here.

Cordierite—Small xls of this mineral is found in the slate of the Hollywood Hills.

Dolomite—The Palos Verdes Hills is a veritable mecca for various colors of fine groups of Dolomite xls. Clear, white, red, blue, green, aqua, tan, amber, yellow, golden, black and gray, in per-

fect rosettes and xl groups are readily found. Sometimes the Dolomite is associated with Tremolite, Pyrite, Chalcedony and Quartz xls.

Epidote—Large masses of green, crystalline Epidote is found in the San Gabriel Mts.

Epsomite—Found in the Palos Verdes Hills.

Erythrite—This rare mineral is found in Pacoima Canyon, associated with Pyrrhotite and Annabergite.

Fluorite—Good xls of Fluorite, associated with Galena, is found in the Felix Fluorite Mine near Azusa.

Galena—With Fluorite at the Felix Fluorite Mine near Azusa.

Garnet—Weathered xls of (? variety) Garnet are found in the San Gabriel Mts.

Glaucophane—Collected at Malaga Cove by Col. Clarence M. Jenni.

Gold—Some Gold can be panned in the streams of the San Gabriel Mts. Some Gold is found near Newhall.

Graphite—Nice specimens can be collected at the Ophir Mine in Tick Canyon. Common in the canyons near the vicinity of San Fernando.

Griffithite—Amygdules of this very rare mineral are found in the basalt of Cahuenga Pass.

Gypsum—Perfect Selenite xls are found in the mud banks along the highway at Malibu Beach. Massive specimens can be collected at the Palos Verdes Hills. Beautiful curved xls are also found in the Palos Verdes Hills along with specimens of Hair Gypsum. Clear xls are found here, too, associated with Quartz and Dolomite xls. Fibrous Gypsum is common in the Montebello and Whittier Hills. Some Selenite xls are found in the bluffs of the Santa Monica Palisades.

Hematite—The variety Specularite is found in the abandoned mines along the Angelus Crest Highway.

Heulandite—Found in the basalts of Cahuenga Pass.

Hornblende—Good, large xls are found throughout Pacoima Canyon. This mineral is common in the San Gabriel Mts.

Howlite—The finest Howlite in the world is common in the dumps of the old Sterling Borax Mine in Tick Canyon. This mineral has been fashioned into gems, baroques, spheres, bookends, ashtrays, pen sets and figurenes.

Ilmenite—Found throughout the San Gabriel Mts. Common in Pacoima Canyon.

Labradorite—Common in the San Gabriel Mts.

Laumontite—Found in the basalts of Cahuenga Pass.

Limonite—Fine xls of Limonite, pseudomorph after Pyrite are found associated with Dolomite in the Palos Verdes Hills. In this same locality, Yellow Ochre is common. Red ochre (Indian Paint) is found in the San Gabriel Mts.

Magnesite—Some Magnesite was collected by the author in the Palos Verdes Hills.

Magnetite—Small xls of Magnetite were found in the Palos Verdes Hills associated with Dolomite. Titaniferous Magnetite is found in the San Gabriel Mts.

Malachite—This mineral was collected by the author in Pacoima Canyon associated with Siderite.

Marcasite—Has been found in the Palos Verdes Hills associated with Dolomite.

Mariposite—Found in San Francisquito Canyon.

Melanterite—Occurs in Pacoima Canyon.

Minium—Bright red Minium is rarely found with Galena at the Felix Fluorite Mine at Azusa.

Molybdenite—Plates of Molybdenite up to two inches are found in the Allanite-Zircon locality of Pacoima Canyon.

Muscovite—Found in Pacoima Canyon and throughout the San Gabriel Mts.

Natrolite—Hard, compact nodules of radiating Natrolite are found in the basalts near Lake Malibu. Small xls are taken in Brush Canyon, Hollywood. Vugs in the basalt of Tick Canyon are

filled with beautiful xls of Natrolite associated with Analcime.

Opal—Common opal is found near Lake Malibu. The variety Diatomite is common in the Palos Verdes Hills, sometimes containing various fossil remains such as fish, plants, animal bones and shark teeth. The hills near Alhambra have deposits of Diatomite containing fossil fish and plants.

Prehnite—Some Prehnite has been found in Brush Canyon, Hollywood.

Probertite—This rare mineral, in slender radiating xls are common in the dumps of the old Sterling Borax Mine in Tick Canyon.

Pyrite—Pyrite is commonly found in the boulders of the San Gabriel Mts. In the Palos Verdes Hills, perfect cubes and pyritohedrons are available associated with Dolomite, Quartz, Tremolite and Chalcedony.

Pyrolusite—Dendritic Pyrolusite is common in the Palos Verdes Hills.

Pyrrhotite—Massive, fine Pyrrhotite is found in Pacoima Canyon, associated with Siderite.

Quartz—Small xls are found throughout the San Gabriel Mts. Perfect, doubly terminated, clear Quartz xls are found in the Palos Verdes Hills, associated with Dolomite and Barite. Good xls, some associated with silicified wood is found near Lake Malibu. Quartz xls are found in some places in Griffith Park. Quartz xls, lining Chalcedony geodes are found near Lake Malibu.

Quartz variety *Chalcedony*—The area surrounding Tick Canyon is a haven for collectors of various types of Agate. Such varieties as Fortification, Ribbon, Moss, Sagenitic, Rainbow and Plume are found in the area around Lake Malibu. Chalcedony pseudomorph after coral (Rudistid) is also found here. Some good Chalcedony is found in the Palos Verdes Hills, along with Whalebone that has turned into pure Chalcedony. The so-called "Moonstones" found on the beach at Redondo are purely Chalcedony.

Quartz variety *Jasper*—Some Jasper is found near Lake Malibu. Jasper after wood is found in the Palos Verdes Hills and near Lake Malibu.

Realgar—Small particles of Realgar is found in the Colemanite of the old Sterling Borax Mine in Tick Canyon.

Serpentine—This mineral was collected by the author in Pacoima Canyon.

Siderite—Good specimens of Siderite is found abundantly in Pacoima Canyon. Some Siderite is found in Big Tujunga Canyon.

Thomsonite—Found in Brush Canyon, Hollywood.

Thorite—The variety Uranothorite is found in Pacoima Canyon.

Tremolite—Long fibers of Tremolite is found in the Palos Verdes Hills, associated with Pyrite, Dolomite and Limonite pseudomorph after Pyrite. The variety Mountain Leather is also found in this locality.

Ulexite—Fine specimens of this silky mineral is found in the dumps of the old Sterling Borax Mine in Tick Canyon.

Veatchite—This rare mineral is found at the old Sterling Borax Mine in Tick Canyon.

Zircon—Fine xls of Zircon, up to 3 inches long, some doubly terminated, are found in Pacoima Canyon associated with Allanite. These specimens fluoresce beautifully.

WOMEN'S CORNER

(Continued from page 30)

penses, such contributions will be gratefully received.

The continuance of the Women's Corner will depend largely upon the support given my by readers. Come on girls, don't let me down. Now that the women are being recognized by America's oldest mineral magazine, R & M, we must keep the Women's Corner going.

I would appreciate also, notes, news, comments, suggestions, criticisms, and ideas so that we can make this column of interest and value to all women readers. With your aid it can be a most interesting feature of R&M.

Send all items to me, Winnie Bourne, c/o R & M, Box 29, Peekskill, N. Y.

THE GEM COLLECTOR

Conducted by Bill Cole
408 Dickinson, Chillicothe, Mo.

AMBER

This column is devoted to all the readers of R & M who from time to time like to add a gemstone to their collection for the purpose of brightening up a display case, or for the mere curiosity of the stone.

This month we shall talk about Amber, the fossil resin of ancient conifer trees. Amber is the lightest of all gemstones having a S. G. of only 1.07 which is only slightly heavier than water. It is a typical Hydrocarbon having the general formula of $C_{10}H_{16}O$. The color varies from pale yellow or white to dark brown, with a refractive index of 1.540 more or less depending on the variety. Amber becomes strongly charged when rubbed on a piece of wool cloth or even the hand. This is where we get our present day term electricity, from the Greek word for Amber—Elektron.

Amber is often imitated by using various plastics and glass, but is easily distinguished from these fakes by the following test. Place four or five teaspoons of salt in a glass of water in order to make a strong brine solution, and upon placing the suspected stones in this only the true Amber will float and the imitation ones will sink like a rock.

'Nuff said for the technical stuff, now for a bit on the lore of the gem. For over two thousands years Amber has been recognized as a fossil resin. Pliny's Natural History of the World in the section on gems states that Amber, which is washed upon the seashore, is the fossilized juice of the Pine tree.

In ancient Rome every stone worn as jewelry was believed to have some marvelous power as a cure or protecter against evil. And when it came to this, Amber was held in high esteem as it was believed to be a cure for everything from sore throat to driving away evil spirits.

The ancient Chinese big shots used amber as incense, burning it in great quantities at banquets and other important occasions. At one time in China it was considered the mark of a real dude for one to burn high priced Amber at a banquet. It was also utilized to kill bad odor in the days when food preservation was a problem, and stored food assumed an odor. But as a whole Amber has been used for ornamentation down through the ages.

Amber occurs in several localities throughout the world. The most important of these being East Prussia, where the Amber is dug out of a green glauconite sand called blue earth. There it is transported in small trams to the washing plant, where it is freed of dirt and grime by powerful jets of water; it is then cleaned and semi-polished in large revolving sand filled drums; it is then ready to be sorted and sent to the world markets.

Other localities are Burma where a pale yellow variety termed Burmite is found along the Chidwin River. Another variety known as Rumanite which is usually dark reddish-brown in color is found in Buzau, Rumania. Lesser important localities are The Netherlands, Finland, Sicily, and the Baltic Sea.

Baltic sea Amber is rather rare but is a very beautiful clear yellow, much sought by collectors. It is often gathered by fishermen and beachcombers and sold to dealers who sell it all over the world. Amber has also been found in the United States in Kansas near Carneiro, Ellsworth Co., where it occurs as rounded masses up to four inches in size.

That Amber which bears inclusions of insects, pine needles, or bits of bark are the most sought after kind because of its rarity and value. The insects found imbeded in the resin are often greatly distorted due to the great struggle they must have put up when they found themselves

caught in the sticky resin. But they still tell the scientists of today what life was like on earth millions of years ago.

If you have a specimen of Amber that you think might show inclusions it may be polished to reveal the inside, or be used as jewelry. First smooth a surface on 220 grit sanding cloth placed over a hard plane surface such as a hardwood board about 4x6. Then sand on 400 to 600 grit cloth until the specimen shows a semi-polish. Now you are ready to polish. Place a soft leather such as chamois or a piece of felt over a firm padding and using Tin Oxide as a polishing agent and with brisk strokes a beautiful agate-like finish is achieved in a short time. The fact that Amber is so soft it is best to carry out these operations by hand althought regular lapidary machinery can be used if care is taken not to overheat the specimen.

If you don't already have an Amber specimen in your collection, write your favorite dealer and see what he has, and remember good Amber like any other good specimen will never be worth less and will increase in value as the years go by. Amber is always interesting to collectors whether they collect Gems, Fossils or Minerals for it fits in to any of these collections.

REFERENCES

AMBER, by Walter J. Beichert, R&M, March 1932, pp. 1-5.

TESTING AMBER, by Dr. H. C. Dake, R&M, Dec. 1932, p. 142.

AMBER, by Jonathan M. Blair, R&M, Aug. 1935, pp. 116-119.

MEXICAN AMBER, by John Buddhue, R&M, Nov. 1935, pp. 170-171.

VISIT TO AN AMBER MINE IN EAST PRUSSIA, by Gertrude Schmidt, R&M, June 1937, p. 188.

AMBER IN THE DOMINICAN REPUBLIC, by Dr. Willy Lengweiler, R&M, July 1939, pp. 212-213.

AMBER OCCURRENCE IN ALASKA, R&M, Oct. 1945, p. 481.

AMBER OCCURRENCE IN RUMANIA, R&M, Nov. 1945, p. 522.

AMBER MINES OF BURMA, R&M, Dec. 1945, p. 582.

Historical Specimen Donated to R & M!

Editor R&M:

"I am sending you a parcel with several 'locality' specimens. These are not the showy type but I believe the localities are of interest to you. Please note the specimen of rutile. This piece was in the Calvert Collection which Martin Ehrmann brought to this country. It was merely labelled 'Oxide of Titanium — W. America.'

"Needless to say that it was collected before the Revolutionary days, or shortly thereafter, for W. America meant any locality west of Philadelphia or Baltimore. I think the piece is worthy of a place in an Historical Museum, and perhaps a little write-up in your 'world atlas' of mineral localities.

"I have several other pieces from little known localities which I will send you in a few days. Please accept them with my compliments."

John S. Albanese
P. O. Box 221
Union, N. J.

Oct. 1, 1955

The rutile specimen donated by Mr. Albanese is a dark red xline mass. 1x1½ in size. Its label reads: "Rutile Specimen from Lord Calvert Collection. Locality uncertain. Merely labelled W. America. Collected circa 1810 Note old label."

We are delighted to get this historical specimen but its exact locality may never be known. Examination of an old publication — A Catalogue of American Minerals with their localities, Samuel Robinson, M. D., Boston, 1825 — informs us that back in those days, 1825, there were 41 localities for rutile as follows:

Conn.	7
Del.	1
Me.	1
Md.	1
Mass.	13
N. J.	1
N. Y.	3
N. C.	1
Penn.	3
S. C.	2
Vt.	3
Va.	5
	41

Mr. Albanese's specimen must come from one of these localities. But which one? That is a mystery which may never be solved!

FOSSIL DEPARTMENT

Conducted by Howard V. Hamilton
2241 East 21st South
Salt Lake City 9, Utah

FOSSIL COLLECTING IN WESTERN PENNSYLVANIA
Part 2—The Cambridge (Pine Creek) Limestone

The Cambridge Horizon

The Cambridge horizon extends over a wide area of western Pennsylvania, eastern Ohio, western Maryland and northern West Virginia. The formation was named for exposures near Cambridge, Guernsey county, Ohio. The name Cambridge has priority, however some reports of the Pennsylvania Topographic and Geologic Survey refer to this horizon as the Pine Creek. The Cambridge limestone, in the Conemaugh group of Pennsylvania age, lies about 185 feet above the Upper Freeport Coal. It is a dark, carbonaceous shaly limestone which varies from 6 inches to 2 feet in thickness and carries marine fossils. It resembles the Brush Creek limestone, about 60 to 65 feet lower, which underlies the Buffalo sandstone and overlies the Brush Creek Coal. The Cambridge is above the Buffalo sandstone and below the Bakerstown Coal. The common occurrence of bryozoa in large numbers on the upper surfaces of weathered blocks may aid in identifying this limestone.

Fossils

Mr. David M. Seaman, formerly of Carnegie Museum, Pittsburgh (now in the Department of Mineralogy, American Museum of Natural Mistory, New York City) issued a faunal list for the Cambridge (Pine Creek) limestone. (1) Seaman reported eighty-seven species of invertebrate fossils identified from this limestone. He indicates that no one group is dominant. Twenty species of brachiopods occur. The more common varieties are Marginifera splendens (N & Pr), Neospirifer triplicatus (Hall) and Juresania nebrascensis (Owen). There are sixteen species of gastropods. Worthenia tabulata (Conrad), considered the index fossil for the Brush Creek limestone, has been found in the Cambridge but is rare. Twenty-one species of pelecypods are found. the commonest being Allorisina terminale (Hall) and Edmondia aspenwallensis (Meek). In addition there are nine cephalopods, two bryozoa, five crinoids, three foraminifera, two trilobites, two conodonts, six ostracods and one specie each of amphineura, vermes and coral. Vertebrate fossils are represented by shark teeth. Seaman lists two—Petalodus ohioensis (Safford) and Deltodus angularis (N & W) and indicates that additional unidentified species have been noted. The writer has in his collection specimens of one believed to be Peripritis semicircularis and another, unidentified, of the Cladoselachian type, in addition to the two more common species.

Localities

There are numerous exposures of the Cambridge limestone in the area. The few following are localities where good exposures are available and good specimens have been obtained.

1. Baltimore and Ohio railroad cut (upper bench) near Glenshaw on Route 8, about two miles north of Etna, Allegheny county, Pa.

2. Pennsylvania railroad cut (spur track) at the bottom of Logan's Ferry hill and along the highway near the cut, about one mile south of Parnassus, Westmoreland county, Pa.

References

1. Seaman, David M: The Cambridge (Pine Creek-) Limestone of Western Pennsylvania. Proceedings of the Pennsylvania Academy of Science, Pages 60-65, Vol. xv, 1941.

2. Wilmarth, M. Grace: Lexicon of Geologic names of the United States, USGS Bulletin 896.

Notes About Our Readers

Mr. Doug Rae, 1207 E. 10th St., Bloomington, Indiana, writes that Grand Isle, Vermont, is a good locality for Ordovician fossils. He reports that large specimens of trilobites have been found there. Perhaps Mr. Rae will send us a detailed account of his collecting activities at Grand Isle.

During a recent visit to the home of Mr. Walter Reeves, R. D. #3, Greencastle, Indiana, we were asked to identify some curiously shaped geodes. They were roughly cone shaped with a dome-like surface on the larger end. Mr. Reeves, who collected them along Bear Creek, near Trevlac, Brown county. Indiana, wondered if they represented former crinoid heads, there were ribbed markings on some of the specimens similar to those found on large solitary corals. The specimens were later shown to Dr. Harold Bissel, of Brigham Young University, Provo, Utah, and he believed they might have formed in cavities formerly occupied by solitary corals.

NOVICE COLUMN

In the Sept.-Oct. 1953 R&M, Gordon S. ViGario, 2231 Pine St., Bakerfield, Calif. suggested that a Novice Column be opened for rank beginners in mineral collecting. These amateurs, who do not know one mineral from another, may submit their names to the Novice Column.

It is our hope that collectors having duplicates may donate a few specimens to one or more novices who are expected to acknowledge receipt of specimens received and to reimburse each sender for postage paid on the packages. Please print or write plainly the names and localities of all specimens sent novices, and if 2 or more minerals appear on the same specimen, identify each. Remember the novices do not know one mineral from another, so please be as helpful as you can.

The following is the 14th list of novice collectors.

Carl Strand (17 yrs.), 5700 Cabot Drive, Oakland 11, Calif.

Robert Wages, 15 Heron Rd., East Hartford, Conn.

Nick Indra (8 yrs.), 602 Maple, Osage, Iowa.

Fred C. Blunck, 607 Kenilworth Ct., Clinton, Iowa

Michael H. Hunt (12 yrs.), 1454-B 5th Ave., Ft. Knox, Ky.

Patti Sue Nicholson (13 yrs.), 1008 College St., Canton, Mo.

S. Irving Paterson, 810 Murray St., Elizabeth, N. J.

William Beckwith, 182 Second Ave., Little Falls, N. J.

John F. Weissert, 2067 Westfield Ave., Scotch Plains, N. J.

W. G. Bywater, Jr. (15 yrs.), 133 Summit Ave., Upper Montclair, N. J.

Tony Dixon (15 yrs.), 1889 Windermere, East Cleveland, Ohio

Mrs. T. L. Ray, 29 Spinning Road, Dayton 3, Ohio

Mrs. Inez O. Rogers, P. O. Box 184, Oakridge, Oregon

Ben Thomas, Box B-15 Muhlenberg College, Allentown, Pa.

Rege Kausler, 5215 Baum Blvd., Pittsburgh 24, Pa.

Mr. Verloyn Bettcher, 665 West 1st St., Winner, So. Dak.

Mrs. George W. Harding, Woodstock, Vt.

Richard Bennett, Brewster, Wash.

The Rev. Harold Krenz, Tigerton, Wis.

Glenn Bagley, 94 First St., Kirkland Lake, Ont., Canada

Note: Because of the large number of names sent in for this column and the number keeps increasing, we are forced to limit the names to subscribers only.

Club and Society Notes

Attention Secretaries—Please submit neat copies. Give dates and places of meetings. Check names for correct spelling.

East

Mineralogical Society of Penna. November 1955, Field Excursion

The November Field Excursion and semi-annual meeting of our Society was held Sunday the 6th, the former on the dumps and upper level of the Royal Green Marble Quarry at Phillipsburg, N. J. and the meeting in Markle Hall, Lafayette College, Easton Pa. Permission to enter the quarry, which is considered to be a rather dangerous place, was secured by our esteemed fellow member, Dr. Arthur Montgomery. Much credit is also due Mr. John Bertrand for providing and placing directional and warning signs and the display of a case of polished specimens showing the species to be readily found in the vicinity. A very useful and helpful addition. Among the finds were molybdenite, of which Mr. George M. Pharo discovered a 20 inch boulder of fine, showy quality. Three choice apatites were discovered in a rock pile near the office, the lucky finders were Mr. and Mrs. George Matter, Mr. Clark P. Mc Lean and Mr. P. D. Mc Farland. The abundant, massive, red dolomite-calcite made quite a hit with the crowd, the surfaces when polished are really quite attractive. Eastonite, verdilite, vermiculite, fibrous calcite, tremolite, serpentine in variety, along with some thorianite and zircon crystals were also obtained.

The time spent in the quarry seemed very short when we were called to assemble in the college lecture hall. Dr. James L. Dyson, head of the Geological-Mineralogical Department and Dr. Arthur Montgomery, made speeches of welcome to the group with earnest assurances of co-operation with our Society, at all times, in its aspirations. They expressed the conviction that close ties should be maintained between the purely scientific and popular phases of Mineralogy, voiced warm good wishes for the success of the M. S. P. and extended an invitation for the Society to visit Lafayette College at any time they may wish, in the future. At the close of business and committee reports, President Evans closed the meeting and we adjourned to the long corridor where much pleasure was had in seeing many beautiful specimens in which Pennsylvania and New Jersey species predominated. They were displayed in perfectly lighted, glass-shelved cases. The outstanding fluorescent exhibit, was located in a room of its own, in two roomy cases, one for the species appearing to the best advantage under short wave lamps and the other to those requiring the long wave.

Harry W. Trudell
Member Publicity Committee
1309 Highland Ave,
Abington, Pa.

M.S.P. field trip to Royal Green Marble Guarry, Phillipsburg, N. J.

Minutes of the Regular Meeting of the New York Mineralogical Club, Inc.

October 19, 1955

The regular October meeting was held in Room 403, Schermerhorn Hall, Columbia University, New York City, on Oct. 19, 1955. The meeting was called to order at 8 P. M. by the new president, Mr. Curt Segeler; 58 members were present.

A warm greeting was extended and a short resume was given to the members by Mr. Segeler outlining his ideas on club activities and requested expressions from the members on club programs. His also suggested that projects be made by the club such as memorial papers to Dr. Alfred Hawkins and John Boyle; spotting collecting areas on topographical maps; and courses on minerals.

Comment by members was: not enough field trips, there should be at least 2 per year.

Mr. Segeler announced his appointments to various committees.

A new member was elected, Miss Rosaline Kurfirst.

Recess was held at 8:45 P. M.

The program followed at 9:10 P. M.

A raffle was held on a group of Prospect Park specimen material donated by Mr. Lisle. Mr. Lisle received a warm note of thanks for his generosity.

Visitors were introduced: Miss Helen Plott, Mr. Raymond J. Ripple, and Mrs. Mary E. Nemetz, all three made applications to join.

Miss Elinor Greene, feature writer for the Daily News, was present to search for interesting people living in Brooklyn or Queens. She later reported that the visit was most satisfactory.

The secretary announced that the club would be visited by the New York Enthusiasts on Nov. 10, but a change was required to their schedule and this visit will take place in January instead.

The exhibit of member collected material was extensive, us usual.

Victor Pribil, Secy.
47-18—37th St.
Long Island City, 1 N. Y.

NORTH JERSEY MINERALOGICAL SOCIETY

November Meeting

Rock formations, minerals, fossils and glaciers of the Canadian Rockies in the National Parks of Banff, Jasper, Lake Louise and others nearby were described and pictured for members of the North Jersey Mineralogical Society at its November meeting in Paterson Museum. The speaker was Joseph Kuchar, a member of the Society, who with Mrs. Kuchar had made a three-weeks' trip through the region. . .

They had been much interested in the geological formations, all sedimentary, which are seen clearly everywhere, even at the tops of mountains 12,000 feet high. Many of the strata are still horizontal, just as they were laid down under water when the ocean covered the area. Later subterranean activity raised them and many are tilted at about 45 degrees, Mr. Kuchar said.

He exhibited several specimens of trilobites in gray shaly rock which he had collected at about 8,000 feet on the talus slope of a mountain. He said there were literally millions of these fossils which had weathered out and fallen from above; it was only necessary to pick them up.

From an abandoned lead-zinc mine the Kuchars collected finely crystallized galena, brown sphalerite, chalcopyrite, pyrite, marcasite and barite. They attempted to reach another mine in operation but gave it up as the road grew progressively worse up the mountain.

Mr. Kuchar's talk was enchanced by a wealth of color pictures, both stills and movies of the park scenery and many of the animals which roam at will, protected and unafraid.

He showed several close-up pictures of the glaciers, demonstrating the accumulations of rocks and debris which they collect and carry along with them; not only at the bottom but at many successive levels, giving a layered appearance. As this material is dropped at the front edge of the glacier the smaller and lighter stuff is carried away by water and the larger boulders remain. In his pictures of the numerous streams, water falls and glacial lakes Mr. Kuchar called attention to the peculiar blue-green color of the water, which seems to be uniform everywhere.

He said he was rather proud of some still and motion pictures he showed of a bull moose taken at about 12-foot distance. The moose was feeding on leaves of a tree and kept on undisturbed, looking at the man with the camera only as it stopped to chew a mouthful of food, now and then. Mr. Kuchar had several pictures of black bears which are numerous, and also of brown bears and one which he thought was a young grizzly. These animals often sit on the park highways and traffic must go around them or wait for them to move. They are always hungry and come up to car windows hoping for tidbits. Other animals caught by Mr. Kuchar's cameras ranged from deer down to chipmunks.

The fifteen-minute study period of the meeting was led by Paul Moore, one of the younger mineral society members, who talked on the mines and quarries of Franklin, N. J. He had prepared an excellent chart of the Franklin area, exhibited numerous specimens of the famous Franklin Mine zinc minerals and told of what may still be found there, even though active mining has ceased, and even though the once huge Buckwheat dump has been well picked over.

The leader in charge of this regular feature at the next meeting will be William C. Casperson, curator of Paterson Museum.

December Meeting

About eighty members and guests of the North Jersey Mineralogical Society enjoyed the Society's annual Christmas party held in Pater-

son Museum. The December meeting has for several years been devoted to holiday festivities, and this year's party was rated as one of the best.

Following a brief business session the meeting was turned over to the Social Committee headed by Mrs. Elsa Milligan and the Program Committee headed by William C. Casperson. Mr. Casperson was also, as it happened, the leader of the 15-minute mineral study period. He took Lead for his topic, speaking briefly of the various kinds of lead: "common" lead derived from galena and other ores; "radiogenic" lead, derived from the disintegration of uranium and thorium; and native lead, which may or may not be of uranium or thorium origin. He then presented a color motion picture entitled "Lead from Mine to Metal," made in cooperation with the St. Joseph Lead Company and showing the mining, milling and smelting operations of the company's mines in southeastern Missouri.

An exchange of gift minerals is always a feature of the Christmas party, the distribution being made by matching numbers. Each person chose a numbered tiny golden tree from a green and white Christmas tree, and little gold trees with corresponding numbers were placed on each gift package. George Stevens and Harold Weimann supervised the distribution, assisted by two younger mineral enthusiasts, Terry Milligan and Alan Read. Terry Milligan had done the preliminary work of numbering and decorating the trees.

Mrs. Milligan's committee awarded three door prizes, and two special prizes were donated by Joseph Kuchar. Drawings of numbers were made for the door prizes.

Warren Duncan led the singing of traditional Christmas songs and hymns, together with several special mineral club songs arranged by Mrs. William Casperson. Harold Gabriels, accordionist, provided accompaniments.

Cake, Christmas cookies, coffee and soda, candy and popcorn were served, to bring the party to a close. Other members of the social committee assisting were Miss Alypia Wendt, Mrs. George Stevens, Mrs. Duke Stelpstra, Mrs. Harold Weimann.

Decorations in the Museum were by Miro Bianchi and Mr. and Mrs. Stevens.

Marian B. Casperson
Publicity Chairman
9-11 Hamilton St.,
Paterson 1, N. J.

Connecticut Valley Mineral Club

The Connecticut Valley Mineral Club met at the University of Massachusetts in December to hear Dr. Arthur A. Socolow, Assistant Professor of Geology and Mineralogy, describe the cobalt-silver-nickel wealth of the Cobalt, Ontario, Canada, mining area. Dr. Socolow described the geology of the region, with explanation of the formation of the silver and cobalt ore-bearing veins. Most impressive were the dimensions of the "Silver Sidewalk" five feet in width, 100 feet long and 60 feet deep, which produced 658,000 ounces of silver.

Our former president, Dr. W. Menzies Whitelaw, has taken a teaching job in Kingston, Ontario, and everyone envies his location. He has reported several collecting trips into that wonderful collecting country. The Vice-President, Lawrence Schoppee, has taken over the presiding office, and it looks like the Schoppee family is trying to run the club!

Mrs. L. W. Schoppee, Scy.
9 Greenbrier Street
Springfield 8, Mass.

Mineralogical Club of Hartford

Due to the "August storm" damage our field trip to the New England Limestone Quarry in East Canaan, Conn., had to be given up. We were able however to go to the Silex Quarry, No. Stonington, Conn., October 9. The searchers found plenty of crystals in assorted sizes and conditions and came home well satisfied. The Paleontological Division went to Middlefield, Conn., September 25, to make casts of dinosaur tracks and brought home fourteen excellent ones.

We have held regular meetings in September, October, and November with good attendance and interest. The October discussion and display was on quartz, the November on Calcite.

At the October meeting we reluctantly accepted the resignation of our President, Mr. Ralph Hills. Mr. and Mrs. Hills have sold their home in Hartford and moved to Florida. They were made honorary member of the club for life. A dinner in their honor was attended by many of their friends and well wishers.

Mr. Robert Brandenberger the vice president, was appointed by the executive board to fill the unexpired term of President and Mr. George Robinson named Vice-President.

We plan to hold regular meetings the second Wednesday of each month at Boardman Hall, Trinity College, Hartford Conn., at 7:30 P. M. as heretofore. Any one interested is cordially invited.

Ruth M. Cowdell Secretary
Summit Rd., RR#1,
Waterbury, Conn.

New Haven Mineral Club

The Annual Christmas Party of the New Haven Mineral Club was held Dec. 12th, 1955, at the Peabody Museum. The festivities were in charge of the new officers for 1955-56 as follows: Pres. Pierson Kipp; V. P. Charles Wight; Sec., Miss Sally Davis; and Treas. J. L. Sweetman. A beautiful silver Christmas tree with shining decorations and surrounded by a pile of carefully wrapped gifts, occupied the place of honor at the presidents table. The decorations, entertainment and refreshments were in charge of vice president Charles Wight and Mrs. Roberta Wight. There was a gift for everyone and quite a collection of mineral specimens were on sale at very attractive prices.

After games and refreshments Charles Thomas, Mrs. DuCharme, Mrs. Jones and Mrs. Champlain led the club in singing Christmas Carols.

An honored guest at the party was Mr. H. C. Van Tassel, president of the Mineral and Lapidary Society of Pittsburgh.

The club membership is now over eighty with every prospect for a large increase in 1956.

Carl L. Hartshorn
386 Union Ave
West Haven Conn.

Bellows Falls Rock & Mineral Club
Bellows Falls, Vermont.

The September meeting of the club was very successful. We invited the public and the school students to attend a lecture on Peru, being sponsored by the Bellows Falls Rock & Mineral Club on September 29, 1955, at 7:30 P. M. at the Central Elementary School in Bellows Falls.

Mr. Henry G. Neugebauer, of Keene, New Hampshire, world traveler and lecturer, presented a lecture about the Inca Civilization, the ruins, remarkable stone cutting and engineering feats. Included in the lecture he showed 150 colored kodachrome slides, picking those most interesting to the club out of over 600 he had taken on his trip, showing the Lost City of the Incas high in the Andes Mountains. One of the outstanding group of pictures showed rocks perfectly fitted into each other very snug and without any space in between them that had been brought to the tops of the mountains to build pyramids and temples. Cities were built on rock formations. We also enjoyed seeing the colored pictures of the inside of beautiful churches, very ornate, showing beautiful carvings and gold work.

After the lecture the members and invited guests adjourned to the home of Mr. & Mrs. V. R. Call for our business meeting and refreshments. Two of our guests joined our mineral club that evening.

The October meeting was held on October 29th at 8:00 P. M. at the home of the president. As this is our tenth year Mr. V. Robert Call gave a short history of the club, depicting field trips, lectures, distinguished guests, mineral displays at different places including the Rutland Fair that were displayed as a club project. It was voted to start an album of club trips, showing minerals found on the trips, and persons on the trip. Every member was asked to bring to the next meeting on November 26th any pictures that were taken on field trips. We had a guest at this meeting who is very interested in minerals, and we all enjoyed meeting him, as we always like to have visitors.

Our next meeting will be on November 26, 1955 at 7:30 P. M. at the home of Mr. and Mrs. Fred Nies, Jr. R. F. D. # 1, Bellows Falls, Vermont The attendance has steadily improved, with each meeting better than the last, more interest being shown by old and new members alike.

Ethel J. Call, Secretary
15 Atkinson Street
Bellows Falls, Vermont

South

Southern Appalachian Mineral Society

Dr. Martin Wadewitz, vice president of American Enka Corp., Enka, N. C., has been elected President Interim of the Southern Appalachian Mineral Society, succeeding the late Col. Orville M. Hewitt. The action was taken at a special meeting of the Society's board of directors. The regular annual meeting of the Society will be held in January, 1956.

Fred Allen
Lincolnton, N. C.

Chattanooga Rock and Minerals Club
Sept. 13th Meeting

The regular monthly meeting was held at 7:30 in the North Side Branch, Hamilton National Bank lecture room, Chattanooga, Tenn. Maj. Gen. C. L. Bissell, U. S. Air Force, retired, explained in detail the significance of Dip and Strike of Strata. He was followed by H. R. Evans, gemologist. Mr. Evans has a jewelry store and he discussed characteristics of various gemstones. At the conclusion of his address he was bombarded with questions.

Oct. 11th. Meeting

The regular monthly meeting was held at 7:30 in the North Side Branch, Hamilton National Bank lecture room. Mr. H. E. Scrudder, chemist, TVA., demonstrated in a most convincing manner the reaction of various carbonate minerals to dilute acid. At the conclusion of his explanations Mr. Robert A. Laurence, Regional Geologist, U. S. G. S., gave an excellent address on "Some Geological Aspects of the Tennessee Valley." He differentiated between the Great Smoky Mountains and the Cumberland Plateau as to whether both belonged to the Appalachian Range, stating that on a structural basis the Plateau dif fered from the Smokies and hence on that basis could not be part of the Appalachians. He answered many questions.

November 8th. Meeting

The regular monthly meeting was held at 7:30 in the North Side Branch, Hamilton National Bank lecture room. Col. Carl M. Gevers, U. S. Army, retired, brought out details of Faults and Folds and nearby locations where these geological features may be observed. He was followed by Mr. Sven Rordam, chemist-geologist consultant, who displayed after a brief introduction a sound film on the manu-

facture of portland cement. The photography was excellent and the accompanying comments were to the point.

December 6th. Meeting

The regular monthly meeting was held at 7:30 in Room 401, Science Building, Univ. of Chattanooga. Mr. M. L. Hogshead, Jr., discussed Luster and Streak of minerals as aids to identification, and told how minerals of metallic luster have colored streaks. After his demonstration, Prof. Robert L. Wilson, Geology Dept., Univ. of Chattanooga, gave a clear and needed address on "Uranium prospecting in Tennessee." He described some of the common uranium minerals and their alterations, prospecting instruments and mining difficulties. Uranium is found near the northeast corner of the State, but a district that closely resembles the "Four Corners" plateau lies not far distant northwest of here.

Geo. C. Olmsted Publicity
1129 James Blvd.,
Signal Mountain, Tenn.

Rocky Mountains

Cheyenne Mineral and Gem Society

September

The Cheyenne Mineral & Gem Society held its last camping field trip for the Summer season over the Labor Day weekend. There were 8 cars in the caraven led by the R.J. Laughlin's. First stop was the turritella beds where some good agatized pieces of turritella were collected. Then on to Eden Valley for petrified wood; some of the members found some beautiful full limb sections with good bark and worm borings in them, we also found a few nice sugar cane and fern stem casts. Then on again to the Jade fields and the Sweetwater agate beds.

At the Sept. Club meeting Lyle Hardesty brought his tumbling machine and gave a demonstration on his polishing technique. He brot a nice display of some of his finished tumbled stones.

October

At the Oct. Club meeting John Crock brot his optical equipment and gave an actual demonstration on polishing cabochons with it. With very litle conversions he uses the many laps of the optical lens grinders to obtain a multitude of shapes and sizes in cabochons, bowls, vases, and many other items. Surprisingly the equipment requires very little watching while it is in operation. The laps are chosen, the stone put on the special dop stick, the machine is set, grit and water added and the operator may then retire to his easy chair while the machine does the work. The machine must be cleaned very thoroly between each operation, bht that too is a very simple process.

November

At the Nov. Club meeting the Pebble Pups put on a very fine program, each giving about a 5 min. talk. Judy Sargent talked about fossils; John Sargent....Agate. Leslie Pierce.. field trip to Guernsey. Allen Pierce..field trip for Sweetwater agates. Peter Taylor...; Jade. Gene & Donald Stump....Crystals and the San Francisco convention. Janet Steege...; Artifacts. Gary Kopsa.... Alaskan Ivory. Nancy Alexander..field trip to Wiggins Fork.

Mrs. R.J. Laughlin, Corres. Sec.
204 E 3rd Ave
Cheyenne, Wyo.

South West

Tucson Gem and Mineral Society

The Tucson Gem and Mineral Society will hold its second annual show on March 16th, 17th, and 18th of 1956 at the Pima County Fairgrounds at South Sixth Avenue (Nogales Highway) and Irvington Road. Our first show was such a success that we have engaged much larger space and hope to have many more collections entered for competition as well as special displays of Arizona collections, world collections, special exhibits and demonstrations.

Ribbons will be given for first, second and third place in each of several classifications for mineral collections, lapidary work, jewelry craft, fossils, etc, for adults and for children. Further information may be obtained by writing the secretary, Mrs. Lena Marvin, 1207 E. Speedway, Tucson, Arizona, or to Pub. Chm. Irene Barber, address below.

At our first November meeting we were shown 50 full color slides of micromounts from the A.L. Flagg collection. Members and visitors found them fascinating and were also very interested in the month's field trip to St. David to hunt for gypsum roses.

Mrs. Irene Barber
2854 N. Euclid Ave.
Tucson, Ariz.

Mineralogical Society of Arizona

October, 1955, Program

The value of a treasure is a relative thing. While the United Verde Mine was industriously digging into Mingus Mountain at Jerome, Arizona, for copper, Nature serenely guarded a delightful secret on the north side of the great mountain—and waited. In 1946 a couple of curious rockhounds stumbled onto the secret, a virgin deposit of beautiful pink agate jutting out of the ground in great chunks. "There are only two kinds of rocks," said one Yavapai county miner with finality, "metallic ores and junk!" So on Oct. 23, eleven automobiles and one motorcycle, carrying 36 members of the Mineralogical Society of Arizona, guided by Moulton B. Smith, went after

the "junk," and they are now cutting and polishing some of the loveliest of Arizona's pink gem stones. "It's the first time," they said, "that we ever drove right into a deposit and just loaded up."

The road going through the deposit goes from Jerome over the mountain to Perkinsville. Coming up from Perkinsville, a little pink road, pinked from iron oxide, winds among green junipers—as picturesque in its own way as Oak Creek Canyon. Going around from Jerome, the road follows the old historic narrow gauge railroad used in the early days to transport copper from Jerome to Chino Valley.

At the first meeting in Oct. the MSOA was entertained with accounts of summer trips by Scott Norviel, Emma Rush, Harry Hill, Jim Blakley, Betty Hopkins, C. F. Thornton and Joe Harris. On Oct. 21, Walter Wells gave an armchair travelog of the state of Washington, illustrated with fine kodachrome pictures. These were the first programs of the winter, season.

November 1955 program

The Mineralogical Society of Arizona enjoyed the annual visit Nov. 18 of their members, W. Everett Berry and his wife, Sue, of East Lynn, Mass. The Berrys are also members of the Boston Mineral Society. Berry entertained his Arizona friends with kodochromes of England, showing old cathedrals and castles, and relating humorous incidents of the scarcity of mineral collectors in England. "If you mention minerals there," he says, "most people think you mean soda pop."

Many of the old English castles are in ruins and are being preserved as monuments. However, Warwick Castle, the largest is still inhabited. Among the features shown were part of an old Roman wall built with odd shaped bricks and flint nodules, prehistoric monoliths, a prehistoric flint location worked 2000 B. C., St. Margaret's Cathedral, and Dorothy Vernon Bridge and pool where things are thrown to petrify. In the dungeons of many of the old castles are still torture instruments that were used in the Dark Ages.

The panel for identifying rocks, Sue Cummings, Harry Hill. Trudie Mills, M. J. Benham and Jim Blakley, said that rare earths and alloy minerals that were pushed aside by old gold prospectors and uranium hunters, are most important today. "But there's no simple answer to what a rock is," they said. "Unless you send it off to an expert, sometimes you haven't got what you think you have, and even sometimes the experts don't agree."

Two new members appointed to the board of governors were Mrs. Berlie Robart and Moulton B. Smith.

Something new the MSOA is doing at the suggestion of Mr. and Mrs. Floyd Getsinger, is sponsoring a Girl Scout troop to get their mineral badge. "I think it is a fine idea," said Floyd, "for mineral societies to help the scout troops to acquire their mineral badges."

You often hear that rockhounds are strange people. One particularly odd one joined the MSOA at the meeting, with all the necessary qualifications and sponsors. He's the trained chuckawalla lizard, Johnny Rengo, owned by Oscar and Elizabeth Rengo.

The November field trip was to Saddle Mountain for chalcedony. The trip was supervised and directed by Joe Harris.

Ida Smith, Cor. Secy.,
2010 West Jefferson,
Phoenix, Arizona

Arizona State Fair Mineral Show
November 4 - 13, 1955

"Jewelry made from authentic stardust. The timeless beauty of the universe, captured in gorgeous blue-black settings from out of space and time." Sounds a bit like science fiction, but to the initiate, fact is more understandable, and fascinating than any fiction. "Stardust was formed by the cooling within our own atmosphere of an incandescent cloud of metallic vapor, a cloud formed when a giant meteorite exploded to form the Arizona Meteorite Crater. This explosion turned the nickel-iron meteorite into vapor and created for a brief instant a small star, brilliant and terrifyingly beautiful. As the cloud cooled, tiny spheres of metal rained down—true star dust. These tiny spheres, set in clear plastic and polished to a brilliant luster, are Stardust Jewelry." So states the description of part of the meteorite exhibit at the Arizona State Fair.

H. H. Nininger's meteorite exhibit was the star of the mineral show again this year, displaying some of the world's most unique out of space visitors from the American Meteorite Museum at Sedona, Arizona.

The Arizona mineral show, Nov. 4 through 13, managed by Supt. Arthur L. Flagg and his assistants, Mr. and Mrs. Harry V. Hill, contained a much larger variety and better quality of specimens this year than any one previous.

The "story book of the ages" was displayed by M. J. Benham of Phoenix College—a large collection of fossils from the Archeozoic to the Cenozoic eras, representing the earliest forms of life on earth over a period of 2 billion years.

Arizona State Fair 1955

Five schools, and 41 individual students exhibited. Many of them won awards with displays that showed a growing appreciation and understanding of the earth sciences. Much of this increasing interest has been instilled by Arthur L. Flagg, curator of the State Mineral Museum, who works tirelessly with children over the entire U. S., helping them to start mineral collections and to identify them. His firm conviction is that children who study the messages hidden in nature will never go far wrong. The Phelps-Dodge Trophy this year was one by the Ajo Grade Schools.

Rare crystals of autunite from Washington state were displayed by W. E. Reed and C. Fred Burr of Phoenix.

Odontalite, bone colored with copper, was one curiosity in Katherine M. Trapnell's exhibit. In the past, she says, this has sometimes been sold for turquoise.

Outstanding this year were half-thumbnail boxes with rare crystals; polished nodules and geodes; Oscar Rengo's spectacular native copper; Paul Frank's Arizona aragonite crystals; Arthur Flagg's opal collection, all lead crystals ranging in colors from blue to green and all shades of orange, and his thumbnails of all kinds of silver; and Floyd Getsinger's 35mm slides of micromounts.

Mr. and Mrs. Harry V. Hill displayed their first thumbnail box assembled in 1944. The box was homemade. Thumbnail boxes could not be bought then. Beside it was a 1954 box of brilliant specimens—and this caption, "What we have learned in ten years by joining a mineral society."

Another case, assembled by Arthur Flagg, showed the entire process of mounting mineral miniatures.

Fred Bitner's display from Scottsdale described the first rock collected by a neophite—from there to the study of mineralogy, geology, lapidary work, and all the other earth sciences including uranium. In the display were all the "how to" books, tools, from a pick to a Geiger counter, and gems; tumbled, cut and faceted.

Each year the mineral show's exhibits of the thumbnail "flowers of the mineral world" are more numerous, brilliant and rare.

"For over a hundred years," said General Electric's display, "scientists have believed diamonds could be made from carbon under high heat and tremendous pressure. General Electric in 1955 made the first announcement of a sure method of making diamonds. Important, because of new source of industrial diamonds; and techniques will yield *new forms of matter* with properties of scientific value." Perhaps man will follow his Creator after all and be able to usher in another "In the beginning," rather than blow his little world to pieces as some have feared.

But two mystery specimens at the show, completely unknown, proved that all of Nature's secrets still have not yet been discovered by man.

Ida Smith, Cor., Secy. of the MSOA
2010 West Jefferson,
Phoenix, Arizona

Phoenix Gem and Mineral Show Scheduled for March 1956

Arizona's biggest, wide open gem and Mineral show will be held March 2, 3, and 4, 1956 at the State Fairgrounds in Phoenix. The Show will be open from 7 P. M. to 11 P. M. on Friday, March 2; from 10 A. M. to 10 P. M. Saturday, March 3, and from 12 noon to 9 P. M. Sunday, March 4. Admission 25c.

Three Phoenix organizations; AiResearch Lapidary Club, Maricopa Lapidary Society, and Mineralogical Society of Arizona will display the marvels and wonders of the mineral world in an array of new and surprising exhibits. With the combined efforts of these three organizations, this will be Arizona's largest and most spectacular Gem and Mineral Show.

The outstanding feature of the show will be continuous demonstrations; lapidary work, mounting of thumbnails and micromounts, gold panning, mineral testing for identification, and the art of making fine jewelry.

Stan Jones will show his complete homemade lapidary equipment, including the only known machine for cutting ash trays from semiprecious stone. Another unique display of his will be one of the world's most outstanding collections of petrified wood. Almost every variety will be represented. In this display will be a map of the U. S. A. done in various colored, Arizona petrified wood, each state cut and polished to exact shape and fitted together perfectly.

Arthur L. Flagg will demonstrate the mounting of Nature's own jewels, the multi-colored and indescribably patterned thumbnail and micromounts crystals. Arthur Flagg, known all over the United States as Mr. Rockhound, is currently president of the American Federation of Mineralogical Societies (which includes lapidary societies as well), and represents all the rockhounds in America. An expert mining engineer for more than 50 years, there's a saying, "If Mr. Flagg doesn't know what it is, than nobody does."

Floyd Getsinger will display his unique camera for photographing micromounts on 35 mm film. These transparencies, also on display, show on the screen 1/8 inch crystals enlarged 360,000 times their natural size in their exact natural colors and perfection of detail. Come and take a trip to fairyland. It is something you will never forget.

J. C. Glenn, old time prospector and miner, will bring his collection of gold dust and nuggets, and will demonstrate the science of extracting them from river sand via the gold panning method. If you have never panned for gold, now is the time to learn how.

Some of the most beautiful and unusual jewelry of silver, copper, and gem stones will be turned out deftly; and all the "trade secrets" explained. Jewelry made by these versatile hobbiests is different and individual. Now is the opportunity to learn to design and make your own personalized jewelry. Nothing will be left to the imagination of those who are new and who want to adopt one of the most fascinating hobbies in the world. Some of the jewelry made will be set with polished stones, and some with natural stones.

And there will be numerous dealers' displays.

Collecting minerals and mounting them into jewelry is the second largest hobby in the world. It is estimated that there are around 1½ million mineral collectors in the U. S. alone, and about 30,000 of them are organized through various societies into the American Federation of Mineralogical Societies. The fraternity is growing continually. A good many curious reasons are given for collecting rocks and minerals — to build a collection — to make beautiful gem stones — to keep out of mischief, and if a little crazy, it helps! But one of the most intriguing reasons is to learn the strange and almost unbelievable facts hidden in nature.

Among other displays will be Oscar Lundberg's fossil collection — fossils that date back 160 million years in Arizona. Included in the collection is a specimen identified as part of the head of a phytosaur. The phytosaur was a crocodile-like reptile that lived in the Triassic Period just before the time of dinosaurs.

There will be a new fluorescent display — and many other new features never before shown at a Phoenix Gem and Mineral Show.

Displays from all over the United States are invited and requested. Entries may be competive or non-competitive. For further information, write to Myron Gress, 3229 East Virginia, Phoenix, Arizona.

Ida Smith
Publicity Chairman
2010 W. Jefferson
Phoenix, Ariz.

Korea

Korea Mineral Society

The following item is taken from the December 1955, MINERAL MINUTES of the Mineralogical Society of the District of Columbia:

"Our influence has spread more than our members may surmise. Members of our society have organized societies in Connecticut, New York, Tennessee and Washington. Now a society is being organized in Korea in the Eastern Hemisphere. Who knows! we may be interglobal one of these days. Mrs. Sylvia Czayo is the guilty party. May be a chance to exchange mineral specimens, Reading between the lines indicates Sylvia may be a teeny weeny bit homesick. Write her at her new address:

Mrs. George Czayo, A. P. O. 301 American Embassy, % P. M., San Francisco, Calif."

Hi, you lonesome rock hounds!

I wonder how many rockhounds there are, like the writer, who live in and around the New Bedford, Fall River and Providence area; who are lone collectors? The writer has tried to locate an existing mineral club somewhere in this neck of the woods, without any luck. The nearest seems to be in Boston.

Mr. Zodac, the editor, has kindly consented to help us by publishing this appeal: Why can't we all get together to start ourselves a bang-up mineral-club? Anyone interested?

If so, please write to me, and we'll work out the details and stuff later.

Fritz Carlson
55 Foster Street
New Bedford, Mass.

Col. Orville M. Hewitt (Obituary

Col. Orville Melvin Hewitt, 54, of Asheville, N. C., president of the Southern Appalachian Mineral Society, died unexpectedly October 29 while conducting a mineral field trip in Avery county N. C.

The colonel was a retired army officer and with Mrs. Hewitt had made his home at 6 East Forest Road, Biltmore Forest. His death was attributed to a heart attack.

Col. Hewitt was a graduate of the United States Military Academy, class of 1927. He was a star football player during the 1919-1923 seasons at Pittsburgh and later starred for four years at West Point. He was a veteran of World II and was awarded the Bronze Star medal for action in both the Pacific and European theatres.

He was president of the Southern Appalachian Mineral Society for a number of years and was an exceptional lapidarist. He was widely known in mineral circles across the country and played a major role in the establishment of the new Museum of North Carolina Minerals on the Blue Ridge Parkway near Spruce Pine, N. C.

Col. Hewitt is survived by the widow and a son, Michael Adam, a student at Lawrenceville School, Lawrenceville, N. J. Funeral services were held in Arlington National Military Cemetery.

Fred Allen
Lincolnton, N. C.

His Choice — R & M!

Editor R&M:

I am a subscriber to several magazines, in addition to *Rocks and Minerals,* which are of interest for rock-hobbyists such as myself. It was only upon considering a subscription to such a magazine as a gift to my young friend, that I asked myself: "Which is your choice of all the magazines? If you could have only one, which would it be? My answer was *"Rocks and Minerals"*. My request that you enter a year's subscription is therefore an expression of my appreciation of your fine magazine and for your devotion to it. Check for $3.00 is enclosed.

Martin L. McIntire
343 58th Street
Des Moines 12, Iowa

Publications Recently Received

Sinkankas—Gem Cutting—a Lapidary's Manual. By John Sinkankas, 413 pp., illustrated 6¼ x 9¼. Published by D. Van Nostrand Company, Inc., 120 Alexander St., Princeton, N.J. ————$8.95.

John Sinkankas, one of America's most famous amateur lapidaries, has facetted his biggest gem to date with the issurance of his "Gem Cutting—a Lapidary Manual." This handsome volume, which made its apperance on Oct. 3, 1955, is a masterpiece, not only because it is writen by an expert, but also because it covers the field from every point of view.

Do you know that gem-stones may be found in almost every part of America, and that a local gravel pit, or nearby hilly country, may be a source of exquisite jewels?

Do you know too that the working and cutting of gems is one of the most absorbing—and rewarding—of hobbies?

The fascination of gems is timeless and world-wide, and the craft of gem-cutting goes back to antiquity. Modern techniques and tools have brought back the ancient art as a modern hobby, making it so simple and attractive that it is rapidly becoming the favorite of amateur craftsmen who want to see something of real value as a result of their efforts.

In this complete handbook of the craft, a noted amateur, holder of the Gemologists Society certificate, and a teacher as well as a practitioner, covers every aspect of the subject:

How to prospect your own gem material and find semi-precious and precious stones in your own neighborhood.

How to prepare stones for cutting, how to shape them and facet them, with a truly professional finish.

How to select, use and care for the tools and equipment.

How to fashion the finished stones into valuable articles of ornament and jewelry.

How and where to buy supplies, tools, raw and finished stones and settings.

How to join the clubs of enthusiasts which exist from coast to coast.

If you are seeking a practical, creative, stimulating craft, you will find this book invaluable. For home craftsmen, jewelers, vocational therapists, it opens new avenues of profitable and inspiring work.

Jensen—My Hobby is Collecting Rocks and Minerals. By David E. Jensen, Director of Geology of Ward's Natural Science Establishment, Inc., 122 pp. illustrated, 8¼ x 9¾. Published by Hart Publishing Company, 670-5th Ave., New York 19, N. Y.—$2.95.

The interest among young people in collecting rocks and minerals is tremendous. It might well become greater, however, with such a book as this to help the beginner.

Too often there is no specific person to whom a boy or girl can turn when he wants practical knowledge about starting such a hobby. A quick look at certain aspects of this book will demonstrate how it can solve the problem.

This book contains information on:

Why People Collect Rocks
Common Rocks and Minerals
How to start a Mineral Collection
Books on Rocks and Minerals
Magazines Dealing with Rocks and Government Maps and Surveys
Museums that have Exhibits of Rocks
Famous Places for Collecting Minerals
Equipment and Paraphernalia for Field Trips
How to Classify Minerals
How to Handle Specimens
How to Catalog Specimens
How to House your Collection
How to Form a Mineral Collectors' Club
Simple Experiments with Minerals

David E. Jensen, the author of this book, is a leading authority in geology and mineralogy. He is now director of the Geological Division of Ward's Natural Science Establishment, Inc. Mr. Jensen has been elected to a number of outstanding world-wide societies in his field and some nineteen of his papers and articles have been published in various prominent publications.

MY HOBBY IS COLLECTING ROCKS AND MINERALS is full of pictures from cover to cover. Every phase of this hobby is illustrated. The book is printed in easily readable type. It is addressed specifically to wide-awake boys and girls.

The tables in this book will be of particular interest to boys and girls who have already embarked upon rock-collecting as a hobby. These are rather complete.

Mr. Jensen has also included an extensive appendix. In it, he has listed most of the museums in the country which exhibit rock and mineral collections, all the State and Canadian geological surveys and the minerals which may be found in every state. Mr. Jensen, with the kind assistance of Ward's Natural Science Establishment, has also included a great many photographs of rocks and minerals. The result is a manual which will be useful to the young rock hobbyist for many years.

Danner—Geology of Olympic National Park. By Wilbert R. Danner, 68 pp., 50 illus., 6½ x 9½. Published in cooperation with the Olympic Natural History Association by the University of Washington Press, Seattle, Wash., 1955.

The Olympic National Park covers a large area in Washington, some of it still unmapped and almost unexplored. There are only a few roads, all in its outer edges. Many details of its complex geology are not known or are imperfectly understood, and geologists disagree among themselves in the interpretation of some aspects of its geologic history. This publication tries to answer in a general way the questions about the formation of the Olympic Mountains. It is intended to serve the visitor to the park, whether he penetrates on foot or on horseback to the mountains of the interior or confines his visit to those places accessible by automobile. The author hopes it will arouse interest in the geology of the park among both scientists and laymen.

Raymond—Where to look for Uranium in California, By Lee Raymond, 40 pp., illus. with 6 maps., 8½ x 11¼. Published by the Mother Lode Press, 32 W. Yaney Ave., Sonora, Calif.————$1.00.

This book is entitled "Where to look for uranium in California." If it were possible to give complete instructions for finding uranium —if anyone knew them—it would be entitled "Where to find uranium in California." And, likely, someone would already have staked a claim.

The most this book can do for you is to provide you with a tool to use—a tool nearly as important as your radioactivity counter—in our search for the elusive metal. It gives a summary of what is published about the geology and minerals of California that is now known to have a bearing on the search for uranium. Besides a brief discussion of each county, references are provided that will enable you to find more information about specific areas within the county; by starting with these references you will generally be able to find whatever is known of any area you wish to prospect.

Dietrich—Additions to Virginia Mineral Localities. By Richard V. Dietrich, Associate Professor of Geology, Virginia Polytechnic Institute, Blacksburg, Va.

A 31 page publication and a most welcome addition to the author's "Virginia Mineral Localities" which came out some months ago. We do hope Prof. Dietrich's request for additional information will be most favorably received. His request is:

"The writer will be most happy to receive information in the future from collectors and professional mineralogists and geologists concerning any Virginia mineral occurrences. Subsequent 'Additions to Virginia Mineral Localities' will be published as warranted."

Published by the Virginia Polytechnic Insti.-tute, Blacksburg, Va.
(Bull. 105) —— 25c.

La Rocque—Marple—Ohio Fossils
By Aurele La Rocque
and Mildred Fisher Marple.

In answer to a long-standing demand by professional geologists, amateur collectors and the public generally, a book on Ohio Fossils is now available according to John H. Melvin, Chief of the Division of Geological Survey.

This book was prepared to serve as an introduction to the paleontology of Ohio and is designed for those who have never studied the subject before. The first three chapters serve as a background to the study of fossils. The first deals with the nature of fossils, methods of collection, preparation, and study, and explains the basic concepts of the Linnaean system. The second chapter places fossils in their relationship to time and constitutes a short, non-technical geologic history of the state. The third chapter outlines the classification of plants and animals, with particular stress on those groups which are represented in Ohio's rocks.

The seven main chapters (4-10) of the book describe in non-technical language the commoner fossils found in each geological system in the state. Line drawings, 413 of them illustrate the main features of the most abundant forms. Both old and new names for a given form are listed. Keys, based on external characters, are provided for most of the groups described. The most fruitful collecting localities in the state are described. For those who wish to go beyond the first stages of collecting key references are listed.

All references in the text are given in the "References Cited" which consists of guide to the literature of Ohio paleontology. All scientific names used in the text are included in the comprehensive index.

The 152 page book is available at $0.97 per copy plus 3 cents tax for Ohio residents and can be obtained from:
Ohio Division of Geological Survey
Room 106, Orton Hall, Ohio State University
Columbus 10, Ohio.

California Publications

The fourth edition of California Division of Mines' best known book, GEOLOGIC GUIDEBOOK ALONG HIGHWAY 49, is now ready for distribution, according to Olaf P. Jenkins, Chief of the Division.

This book, first published in 1948 as Bullentin 141, is a semi-technical treatise prepared to serve as a guide to the traveler who is desirous of information concerning the mines,

minerals, and rocks of the region, as well as the old structures erected during the gold rush days.

Ten different authors contributed to the text and valuable information was obtained from a score of mining men and geologists. The volume includes "Sierran Roads of Today and Yesterday," by Dorothy G. Jenkins, an article well worth reading as it gives the traveler a survey of the roads traversing the area and illustrates their history. "The Discovery of Gold in California," by Donald C. Cutter, has to do with the history, life and romance of the Gold Rush period. The place of gold placer mining is well presented in Charles V. Averill's paper on the "History of Placer Mining for Gold in California." The reader is oriented as to the nature of the Sierra Nevada and the place it occupies in relation to history, geology, civilization and economics by Olaf P. Jenkins papers on the "Sierra Nevada Province" and the "Geological History of the Sierran Gold Belt." C. A. Logan presents an educational as well as entertaining treatise on the "History of Mining and Milling Methods in California," and "Geologic Maps and Notes Along Highway 49," by Oliver E. Bowen, Jr., and Richard A. Crippen, Jr., containing 12 strip maps on route geology, is a well illustrated work on the position of the mines and the quarries, the importance of their mineral deposits, and the geologic reasons for their being. "The Formation of Quartz Veins," by John A. Burgess will be of interest to all amateur mineralogists as well as those more technically trained, and his "Mining on Carson Hill," tells of Jim Carson's activities in that region and gives the history of the Carson Hill Gold Mining Company. The charm of the old mining towns that harmonize so perfectly with the natural loveliness of the Sierran foothills and stand as mute evidence of the early development of what is now called industrial minerals, is well shown by picture and story in Robert F. Heizer's and Franklin Fenenga's "Survey of Building Structures of the Sierran Gold Belt, 1848-70." This article contains 168 illustrations taken at various localities in the Gold Belt.

The volume contains a series of geologic maps covering the entire highway, a strip 277 miles in length, from Mariposa in the south to Sattley in the north, and features 8 colored and 231 black and white photographs. As an effort was made to include the names and locations of the older abandoned settlements as well as existing towns, the principal mines and mineral deposits, the locations of the historic monuments, and mileage for use in location while traveling, this volume is one of the most educational and interesting books published on the Mother Lode Country.

Bulletin 141, priced at $1.50 plus 3 percent sales tax to California residents, may be ordered from the Division of Mines offices in the Ferry Building, San Francisco 11, California.

CANADA PUBLICATION

The Mining Industry of the Providence of Quebec in 1953.

A report on the metals, non-metallic and building materials operations in Quebec during 1953. Contains 111 pp. 8 pls., 2 figs. Published by the Department of Mines, Quebec, Que., Canada.

BRAZIL PUBLICATION

GEMOLOGIA—No. 1, 1955.

The Brazilian Association of Gemology recently released its first bulletin, titled GEMOLOGIA (NUMERO 1, 1955). It is a 34-page, illustrated publication, 5½ x 8½, and printed in Portuguese. Published by the University of Sao Paulo, Fac. de Filosofia, Ciencias Letras., Caixa Postal, 8105, Sao Paulo, Brazil.

New Catalog of Optical Aids

64 pages - over 1,000 optical items - hundreds of illustrations - factual information on all types of optical instruments and components. Many industrial quality control tools - cost cutting, work speeding instruments for checking, measuring, including measuring magnifiers, microscopes, pocket comparators, etc. Countless war surplus optical bargains. Ingenious useful instruments imported from foreign lands. Telescopes and accessories, lenses, prisms, wedges of all descriptions; hand spectroscopes; reticles; mirrors; astronomical telescopes; binoculars; photographic items - dozens of other hard-to-get optical items. A handy and ready supply source for research labs, production and design engineers, scientists, inventors, experimenters, hobbyists. A copy of this informative, fascinating Optical Catalog is available free on request to - Edmund Scientific Corp., Barrington 7, New Jersey.

A 'Must' For His Book Shelves

Editor R&M:

R&M is a great magazine for minerals and up to date articles about localities. It's become a 'must' for my book shelves.

M. Sojka
82 "L" Donovan Drive
Buffalo 11, N. Y.

Nov. 7, 1955

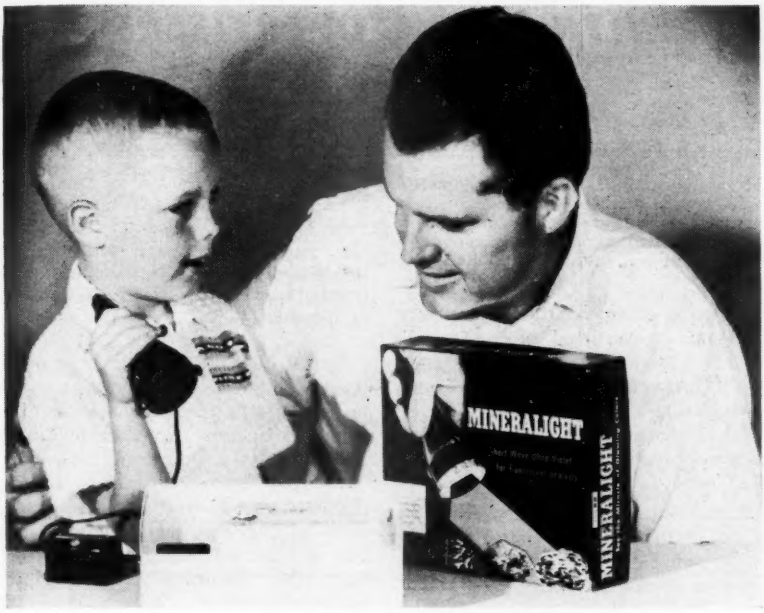
Helpful Hints!

Editor R&M:

In the years we have taken *Rocks and Minerals* — we have found it an interesting magazine and we do find some very interesting information, and very helpful hints, that has helped us greatly since we opened our Rock Shop. In fact we have passed along to other rock-hounds some of the hints that were published in R&M and other rock-hounds benefited as well as my wife and I.

Harry S. McNinch
Prop. Little Gem Shoppe
3462 West Street
Redding, Calif.

Nov. 3, 1955



New Low-priced Black Light Hobby Kit Announced by Ultra-Violet Products, Inc.

Development of a new budget- priced short-wave Mineralight lamp has been announced by Ultra- Violet Products, Inc, of San Gabriel, California. The company's line of ultra-violet products is widely used in the prospecting, rock collecting and mineralogy fields for the identification of fluorescent minerals.

The new lamp, trade-marked "NH Mineralight" is priced at $ 14.75. It is designed to fill the need among hobbyists and mineralogists for just such a beginning unit. Operation on 110 volt AC current, the short-wave NH will activate 90% of all fluorescent minerals. Bulb is rated at 1000-2000 hours of use.

The NH has been specially packaged to add excitement and interest to fluorescence as entertainment for families and children. The kit contains eight mounted mineral specimens, invisible fluorescent crayon, chalk and ink, printed samples of unusual fluorescence, and a descriptive booklet on rocks and minerals which fluoresce. Colorful packing promotes the lamp as a gift item. Small and light in weight, the NH is ideal for home entertainment, revealing unsuspected rainbow colors in hundreds of common house-hold items.

The lamp is sold by all Mineralight dealers. Complete information on Mineralight is available free by writing to Ultra-Violet Products, Inc., Dept. RMN, San Gabriel, California.

Good job of editing!

Editor R&M:

You are to be congratulated for having one of the best magazines on the subjects of Mineral Collecting, Geology, Fossils etc. No matter what the subject may be you do a wonderful job of editing the same.

Charles R. Franz
58 Livingston Street
Clifton, N. J.

Nov. 26, 1955

WITH OUR ADVERTISERS

Conducted by James N. Bourne
% Rocks and Minerals, Box 29
Peekskill, N. Y.

Advertisers are cordially invited to submit News Items to this Department.

James Bourne has been with R&M for over a year. He is Advertising Manager and is intensely interested in promoting good will between advertisers, readers and R&M — The Editor.

We are opening up this Department "With our Advertisers" for the sole purpose of promoting much closer relationship between our readers and our many advertisers. This in turn will be beneficial to all concerned, as many of our subscribers have indicated their interest in such.

We therefore urge our advertisers to send us any news items relative to their activities such as aquisitions of new stock, price lists, special offerings, new circulars — anything that may be of interest to our readers who are forever on the look out for such news items relative to the purchase of some choice item be it a mineral, gem, book, lapidary equipment, etc.

We also would like to request that advertising copy reach us before the deadline date of the 1st day of the odd months — this is important — to you advertisers as well as to us. We cannot stress this point enough, so please cooperate and give us the opportunity to enable us to give you better service which will repay you in better returns from your prospective buyers.

We are very sorry to hear of the recent death of Harry D. Ostrander of Ostrander & Ostrander, (Jewelry Castings) 2210 North 42nd St., Seattle 3, Wash.

His son, Walter L. Ostrander and his mother, will continue the business and we wish them every success and look forward to resuming business with them in the near future.

Gilbert W. Withers, formerly of Genuine Gems, P.O. Box 1531-B, Atlanta Ga., has a new 2-page wholesale price list available to dealers, collectors and interested readers on rough gem material as listed below:

Burma Jadeite, Mexican Amethyst, Apatite Crystals, Pink and Green Tourmaline Crystals from Brazil, Rose Quartz from Madagascar, Appalachian Unakite, Asteriated Rose Quartz from Georgia.

"I have imported, mined, collected, cut, retailed and wholesaled gem materials from all over the world for many years. You will get no junk from me—ever. I want your friendship as well as your business"—says Mr. Withers in his price list.

Minerals Unlimited, 1724 University Ave., Berkeley 3, Calif., is progressing rapidly with their new 1956 General Mineral Catalog which should make its appearance any day, if it has not already done so. In the meantime they have been issuing short price lists featuring many choice items from their stock—the last release was a 5-page price list. Get your name on their mailing list so that announcements may reach you regularly.

Scott Williams, 2346 N. Scottsdale Road, Scottsdale, Ariz., has been releasing some very interesting price lists covering recent additions to his large stock of choice minerals. His Fine Mineral List for November 1955 (8 pp.) featured items from the recently purchased Bolander Collection: The Fine Mineral List for December 1955 (5 pp.) offered attractive specimens from his general stock. Have him place your name and address on his mailing list so that you, too, may receive copies of his price lists as they are released.

Ex Mineral Products, Box 36, Westminster, Colo., have put on the market a collection of 15 beautiful specimens of the United States. The specimens are small but very colorful and consist of obsidian, rose quartz, calcite, selenite quartz xl, pyrite, chrysocolla, agate, petrified wood, gelena, amethyst, coral, lepidolite, mica, apatite. This is a most attractive collection and sells for only 50c postpaid.

Have you ever wondered how it would feel to open a real oyster and find a pearl in it? Well, you do not have to wonder any longer if you will contact the Arkansas Rocks and Minerals Co., Box 791, Fort Smith, Ark., by sending them only $2 for one of their canned pearl oysters (it comes from Japan).— Letter, dated Dec. 20, 1955, from the company reads:

"Open the can and inside you will find an oyster — it has never been opened. Open the oyster by simply inserting a Knife, letter opener or other similar instrument between the shells and pry open. It will take little pressure.

"Now open up the meaty part and there you will find from one to five pearls. We have found as high as eleven. We unconditionally guarantee one. Some rather large and all very beautiful.

"Needless to say they are cultured pearls which in no way detracts from their beauty as they are packed in formaldehyde to preserve them exactly as found. The oyster is unfit to eat and is so labelled.

"We are offering them at $2.00 per can postpaid."

Genuine Gems announces a change of address from P. O. Box 1531-B, Atlanta 1, Georgia to P. O. Box 23, Griffin 3, Georgia.

Collector's Column

Conducted by A. Cal Lector

Our last mineral subject was Magnetite — magnetic iron ore. This time let us discuss a beautiful green ore of copper — Malachite.

Malachite

Malachite is a secondary mineral—that is one formed in the weathered zone of copper deposits. It is usually in fibrous or silky crusts or masses. It also occurs as compact masses, as stalactites and as thin stains on other rocks. Distinct crystals are scarce—they belong to the Monoclinic system and are usually small, slender, acicular prisms grouped in tufts.

Malachite is a basic carbonate of copper — $Cu_2CO_3(OH)_2$ It is light to dark green in color, has a silky luster and gives a light green streak. On Moh's scale the hardness is 3.5 to 4. Malachite may be distinguished from other copper ores of a green color by its effervescence in acids. The name Malachite comes from a Greek term alluding to the color.

Malachite is the commonest of the secondary ores of copper. Large amounts of massive malachite of fine quality came from the Demidoff copper mine near Nizhne-Talisk in the Ural Mountains of Russia. One banded mass measured 9x18 feet and much of the material was cut into slabs for table tops. Another notable occurrence as banded masses, stalactites, and pseudomorphs after azurite crystals is at Tsumeb in South West Africa. It also occurred as pseudomorphs of cuprite crystals at Chessy, France. Malachite is wide spread among the copper deposits of western United States. The copper Queen mine at Bisbee, Arizona, furnished many beautiful specimens.

Visit or write to your dealer soon for a piece of malachite — it will add beauty to your collection..

MICROMOUNT
SUPPLIES AND SPECIMENS

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PYRARGYRITE, Bohemia 2.00
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NEPHELITE, Germany ..... .75
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PARATACAMITE, Nevada 2.50
PARGASITE, Calif. ..... .75
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